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THIS JOURNAL is regularly supplied by subscription to the whole of the Members of FIFTEEN PHARMACEUTICAL SOCIETIES in the British Empire

In our recently re-arranged offices we have made provision of a floor with desks, works of reference, and a file of THE CHEMIST AND DRUGGIST for the convenience of subscribers whom they wish to see before engaging. We have also a room capable of accommodating twenty or thirty persons which we shall be glad to lend free for suitable trade-meetings; but we shall be obliged if subscribers who wish to avail themselves of the latter offer will advise the Publisher in advance. The Catalogues can be consulted any day from 10 A.M. to 4 P.M., and on Saturdays up till 12.30.

Catalogues and price-lists issued by houses connected with the drug-trade are kept on file, and may be consulted; and we also suggest that this provision may be useful to employers who may wish for a central place to meet assistants whom they wish to see before engaging. We have also a room capable of accommodating twenty or thirty persons which we shall be glad to lend free for suitable trade-meetings; but we shall be obliged if subscribers who wish to avail themselves of the latter offer will advise the Publisher in advance. The Catalogues can be consulted any day from 10 A.M. to 4 P.M., and on Saturdays up till 12.30.

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"THE CHEMISTS' AND DRUGGISTS' DIARY"

FOR 1900

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Of their Goods in it.

Summary.

A SALE OF FOOD AND DRUGS ACT CASE is the principal item of news this week (p. 443).

FOUR Fulham chemists have been concerned in the matter.

IN one case which was heard it was alleged that 253 instead of 240 gr. of potassium iodide was put into a 6 oz. mixture.

DR. ATTFIELD, for the defence, disagreed, and the Magistrate, acting upon his evidence, dismissed the case.

IN a second case the summons was withdrawn, and costs were allowed.

THE remaining two were adjourned for a Somerset House analysis. These actions were taken under Section 7 of the Act.

THE ANALYST who said that a sample of milk of sulphur contained calcium sulphate has had his analysis disproved by the Government chemists (p. 445).

OTHER CASES REPORTED refer to weak seidlitz-powders purchased by the retailers, who were fined (p. 444).

THE FOLLY of non-qualified retailers trying to do sweet spirit of nitre business is emphasised by three convictions (p. 444).

THE INLAND REVENUE REPORT contains much that interests the drug-trade. It is commented upon on p. 450.

MEDICINE-STAMP DUTY was paid on the equivalent of about 2,500,000*l.* of medicines (p. 451).

ONLY 695 chemists in the United Kingdom use stills (p. 451).

METHYLATED SPIRIT to the extent of 4,789,149 proof gallons was made in 1898-99 (p. 451).

SPIRITS AND BEER yielded 30 millions of revenue, each man, woman, and child in the kingdom being equal to 1 gal. of spirits and 32 gals. of beer yearly (p. 451).

THE latest store-prices are given on p. 437.

A NEW BOOK on essential oils is noticed on p. 454.

CARBOLIC ACID continues to claim many victims (p. 437).

CANADIANS suggest a lot of new formulæ for the B.P. (p. 447).

THE BRITISH ASSOCIATION meet in Dover next week (p. 466).

MORE wine and other licences have been granted to chemists (p. 438).

MR. E. M. HOLMES reviews the "Onycha" discussion in an interesting letter (p. 459).

THE amalgamation of the Anglo-Swiss Milk Company and Nestlé's is rumoured (p. 446).

A BOARD OF PHARMACY is proposed for the reformed London University (p. 455).

THE VERSATILE "X-RAYSER" this week deplores the super-examination tendencies of modern education (p. 449).

IRISH UNIONS are still busy in appointing Sir Charles Cameron and two or three other chemists as analysts (p. 439).

SIR EDWARD FRY, the ex-Judge, severely animadverts on the medical bodies in regard to commissions to medical men (p. 452).

SOME changes in the Victoria tariff, which affect the drug-trade, are mentioned on p. 441, also others in Venezuela on p. 442.

TRADE is dull this week, with few important changes. Ipecacuanha keeps up its value, and quinine is the other way (p. 463).

TWO trade veterans, Mr. John Elliott, of Berwick, and Mr. R. T. Watson, formerly of Birmingham, are biographically noticed (p. 458).

BLACKBURN IS MOVING to get the Pharmaceutical Council to amend the Lord Chancellor's company-pharmacy clause, and to draft a Pharmacy Bill (p. 438).

English News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

Sheffield College of Pharmacy.

The paragraph which we inserted in our issue last week regarding this College was incomplete. Mr. J. W. J. Turner, pharmaceutical chemist, has been sole principal of the College since his late associate, Dr. Greaves, commenced practice as a medical man. Under Mr. Turner's direct supervision the school has been making excellent progress, and he has arranged terms of instruction for the Minor, which begin on October 3 for the January examination, January 3 for the April one, April 4 for the July one, and July 18 for the October examination. The fee for the Minor course of instruction is 8*l.* 8*s.* and for the Major 7*l.* 7*s.* The instruction given is in the form of lectures and laboratory-work. Mr. Turner endeavours, as far as possible, to bring out the student's capabilities by enabling him to get thorough practice in those subjects which are judged by manipulative dexterity on the part of the student, as well as by the intelligence which he shows in answering questions about them. Each student is taken individually in these subjects. Mr. Turner also has evening classes, which will commence on Thursday, September 15, at 5.30 P.M., and will be held weekly on Thursdays during the winter months. The subjects taught in the evening will be materia medica and chemistry (theoretical and practical). The session will be divided into two terms beginning on September 15 and January 11, the fee being 1*l.* 12*s.* 6*d.* Students may take chemistry only, and for this a special fee will be charged. Further particulars in regard to these classes may be obtained from Mr. Turner, 118 Princess Buildings, The Moor, Sheffield.

Strychnine for Citric Acid.

An inquest was held at Camberwell on September 1 on the body of a tinsmith named Frazer. Evidence was given that deceased, who had been discharged from his employment, was found moaning in his bedroom, and on being questioned stated that he had taken strychnine in mistake for citric acid. Dr. A. A. Ward, who was called in, stated that when he arrived deceased was conscious, and told him what he had done. Witness was shown the two boxes (produced). They were similar in every respect, with the exception that one was labelled "Strychnine (Poison)" and the other "Citric Acid." The cause of death was convulsions from strychnine-poisoning. A Juror: Did he say where he got the poison from? Witness: He said he kept it in the house to kill the vermin with. The Juror: What would he use the citric acid for? Witness: As a cooling drink. I think it most possible that he made a mistake, as the powders are alike in colour and the boxes similar. After some little deliberation the jury returned a verdict of death from misadventure.

The Coroner and Prescribing.

An inquest was held at Trowbridge on September 1, on the body of May Mizen, aged 75. It appeared that deceased refused to see a doctor, but consented to have a bottle of medicine from a chemist. Mr. Dyer, pharmaceutical chemist, was called and asked why he, in common with other chemists, prescribed for people. Witness replied that chemists could not live if they did not do so. Dr. Pearse stated that the medicine supplied by the chemist could not do any harm, even if an overdose were taken. The Coroner pointed out that under the Medical Acts none but a properly qualified person was allowed to prescribe for people. [There is nothing in the Medical Acts to this effect.—ED.] There was nothing to stop a chemist from selling patent medicines, but when he prescribed for anybody he exceeded what he was allowed to do by law. He knew that prescribing was generally done by chemists, and it was a pity it could not be stopped. The Coroner also said that he considered the husband of deceased had failed in his duty, in not calling in a doctor, and the jury returned a verdict of death from natural causes.

Herbalist and Whisky-distiller.

On September 3 a fire broke out in the shop of an old man named William Henry Mee, a herbalist, in Falkner Street, Liverpool. It was reported that Mee was in bed at the time, and before he could make his escape he sustained serious burns about the body. He was conveyed to the Royal Infirmary, and died the next day. The police, on searching the premises afterwards, found an illicit copper still in working order in one of the upper rooms, about 11 gals. of over-proof whisky in a cask, several barrels which had evidently contained whisky, a quantity of sugar in sacks, and some raisins in boxes. It is surmised that the still had been working and the spirit overflowed, and so set fire to a portion of the room. In endeavouring to extinguish the flames, Mee fell amongst the burning spirit and got burned. The Excise authorities were communicated with, and the illicit still and its appurtenances removed to the Government Buildings, Victoria Street.

The Sale of Laudanum.

At an inquiry held at Kimberley, Nottingham, on August 30 into the death of a woman named Amer, Dr. William Scott stated that he attended deceased at Easter, when she was suffering from strychnine-poisoning, and she then told witness that she had taken some vermin-killer. She recovered, and witness got her into the Union. He did not know that she had come out, and he did not think she was fit to do so, as she was not accountable for her actions. On August 28 witness was sent for, and on arriving found her in a comatose state, and she ultimately succumbed to opium-poisoning. He, however, did not find any traces of poison in the house. Frank Burrows, chemist and druggist, Kimberley, deposed that he supplied deceased with sixpennyworth of laudanum, which was, she said, wanted for a bad leg. The bottle was produced, and witness swore that it was labelled "Poison" when he sold it. In reply to the Coroner (Mr. D. Whittingham), witness said he thought there would be enough poison in it to kill a dozen people. He had never sold laudanum to the deceased before. He warned her that it was a very potent drug, and she said she was aware of it, and that she had often used it before.

The Coroner commented severely on the fact that a woman said to have been of more or less unsound mind was allowed to leave the Union, and to obtain poison in this manner. She might have used it for poisoning other people. It was an anomaly that chemists should be allowed to sell opium, apparently, in any quantity, and yet be restricted as to the sale of other poisons. The jury returned a verdict of suicide whilst temporarily insane.

Embezzlement by Mineral-water Travellers.

For embezzling money belonging to his employers, Messrs. R. White & Sons (Limited), mineral-water manufacturers, a traveller named Lewin Joseph Massey was sentenced to two months' hard labour.

John Wilson (31), a traveller in the employ of Messrs. Batey & Co. (Limited), mineral-water manufacturers, of East Dulwich, was also charged last week with using sums of money received from customers for his own benefit, amounting in the aggregate to upwards of 14*l.* The prisoner pleaded that he spent the money in soliciting trade, and had no benefit from it himself. He was sent to prison for three months with hard labour.

Those Surgical Corsets again.

Henry Bacon, dealer, of Waterloo Road, who was charged with the unlawful possession of a pair of surgical corsets, value 15*l.*, a fortnight since, was brought up again on September 1. He still refused to account for his possession of the corsets, and adhered to his story that they were given to him as a parcel of waste paper by a man on Hungerford Bridge. He had been a week in custody and a week on bail, and was now sentenced to seven days' imprisonment.

Recognition.

At a meeting of the Derby Board of Guardians on August 30, the recommendation of the Dispensary Committee to increase the salary of Mr. Shadford, the dispenser, from 100*l.* to 110*l.* per year was discussed. The Chairman

of the committee stated that when Mr. Shadford was appointed the number of prescriptions for the half-year was 27,084, and last half-year there were 39,746. He added that by the dispenser's economy the Board was saving 100% a year. Another member considered that the increase should be 20%, as Mr. Shadford was not allowed to do anything else, the work had increased by one-third, and he was saving the Board 100% per year. The latter proposition was eventually agreed to, and the salary was increased to 120%.

Drank the Maggot-killer.

At Patrington on August 15, a farm-labourer named Henry Noble drank a quantity of solution of corrosive sublimate, intended for killing maggots in sheep, in mistake for a beverage. At the inquest on August 30, deceased's employer stated that he purchased sixpennyworth of sublimate at the shop of Mr. Burnham, druggist, Patrington. He mixed half of it with water, and put it in a bottle which he labelled with a poison-label written in large letters in ink. Accidentally poisoned, said the jury.

Doctored Himself.

At Burnley last week a coal-miner named Christopher Wilkinson died after drinking a quantity of foxglove mixture. At the inquest, on August 29, Dr. Crump informed the Coroner that there was a large quantity of poison in the infusion the man had taken, and he was clearly of opinion that he had died from the effects. The Coroner remarked that the man unfortunately seemed to have been doctoring himself, and on the advice of a neighbour had taken too big a dose of the mixture. Accidental death was the verdict.

Thefts.

The premises of Mr. Botterill, chemist and druggist, Grimsby, were broken into between September 2 and 4, and thoroughly ransacked. A sum of 20s. in coppers (the only cash left in the place by Mr. Botterill) was taken away.

Three school-boys—Jas. Carroll, John Creer, and Wm. Connor—raided the shop of Mr. A. Berry, druggist, Underbank, Stockport, last week, and stole four brushes, a comb, and six bottles of perfume. At the hearing of the charge against them on August 29, at Salford Police Court, Mr. Berry did not press the case, and Creer was discharged; but Carroll and Connor to be sent to a reformatory for four years, and Connor to be birched, both having been previous convicted.

A man named Foster and his wife were charged before the Mark Cross Magistrates on August 31 with the theft of a bottle of scent, a bottle of vaseline, three brushes, and other articles from the shop of Mr. G. G. Hornsby, pharmaceutical chemist, Rotherfield. The evidence of Mr. Hornsby showed that the female prisoner entered his shop and asked to have a cut on the arm dressed. The male prisoner followed her, but left again, and the stolen articles, being subsequently missed, were found in the prisoners' possession. The charge against the woman was dismissed, but the man got six weeks' hard labour.

The Carbolic Season.

The inquest regarding the death of Mr. Ernest Renshaw, the well-known tennis player, revealed the fact that he had died from carbolic-acid poisoning.

Annie Haddock, wife of a Leeds ironmoulder, had for some time been suffering from a tumour. She sent a little girl for a pennyworth of carbolic acid on August 30 and drank it, dying shortly afterwards.

The young wife of a platelayer named Bennett, living in Wavertree, was subject to fits of depression. On August 28 she gave her niece, 9 years old, 6d. and a note to a chemist for a quantity of carbolic acid. She swallowed the entire quantity supplied, and died the same evening in the Liverpool Royal Infirmary.

An Acton lady named Mrs. Armstrong was found in a dying condition in her house with a bottle which had contained carbolic acid by her side. The Coroner's jury found that death was due to the acid. Commenting on this case, the *Ealing Guardian* says: "The death is only another example of the inadequate laws which exist regarding the sale of poisons. Carbolic acid, although one of the most

horrible and most painful poisons, appears to be the recognised medium for committing suicide, particularly among women of the poorer class, simply because it is cheap and procurable without any trouble."

The Leeds Coroner held an inquest on September 1 touching the death of Elizabeth Sykes Grant, who was admitted to the workhouse suffering from typhoid fever, but who also appeared to have had carbolic acid administered to her. Deceased's mother found her unconscious and sent her son-in-law for a doctor. He went out, but returned shortly afterwards saying the doctor was not at home. Witness stated that she afterwards found that he had not been to the doctor's house at all, and during his absence she perceived a strong smell of carbolic acid, and on raising her daughter's head a quantity of the poison ran out of her mouth. When her daughter regained consciousness she told the mother that the acid had been given her by her husband. Dr. Allen, the workhouse medical officer, said the *post-mortem* examination showed that deceased had died from typhoid fever. The jury gave a verdict in accord with the medical evidence, and censured the husband of deceased for his behaviour.

Store Prices.

The Army and Navy Stores' circular contains the following alterations in prices for September:—

Reduced:—Ridge's Food, 1s. 6d. per tin.

Additions:—Sandron's iron tonic, 4s. 2d. and 7s. per bot.; Botot's Eau Sublime, 8s. 6d. per bot.; Botot's tooth-powder, 1s. 9d. per jar; Botot's tooth-paste, 9d. and 1s. 9d. per jar; Atkinson's Centenary Bouquet (in case), 3s. and 4s. 8d. each; in case of 3 bottles, 7s. 6d.; Erasmie herb-perfume, 1s. 4d., 2s. 3d., and 4s. 2d. per bottle.

Students at Play.

On September 2 the students of the Manchester College of Pharmacy, with their Principal (Mr. Chas. Turner, F.C.S.), had an enjoyable outing to Hayfield, in Derbyshire. As the excursion was taken for pleasure, the serious part of it—the botanical work—was practically discarded, although the species of plants peculiar to moorland districts such as Hayfield, where the barometer registered 28.5 inches, were not overlooked. Tea was partaken of at a familiar farmhouse, and the party then strolled about the moors and passed the time with various games. The return journey was begun at 9 P.M., and Manchester reached soon after 11, after a most enjoyable day. Mr. Hirst carried out all the arrangements, and "paid the piper."

An Overdose of Opium.

An inquest was held at Islington on September 5 concerning the death of George Venables, aged 49, a chemist and druggist, lately living at 2 Malvern Terrace, Barnsbury. The widow said her husband contracted the habit of taking narcotics when abroad, for the purpose of inducing sleep, and had been unable to shake it off. Lately he had taken morphia, opium, and chloral in large quantities, and on August 31 she found him insensible, a bottle being near him which had contained opium. She sent for Dr. John Matheson, but her husband did not recover consciousness, and died two days afterwards. Dr. Matheson said death was due to narcotic-poisoning. He understood that the deceased would take opium without measuring it, and in quantities sufficient to kill half-a-dozen ordinary persons. The jury returned a verdict of death from misadventure.

Whose Syphons are They?

At the Lambeth Police Court on September 5, George Williams, a labourer, was charged with being in the unlawful possession of six syphons supposed to have been stolen. The accused was seen trying to sell the articles to a second-hand dealer, and was arrested. Previous convictions were proved, and he was sentenced to fourteen days with hard labour.

To Make the Metric System Compulsory.

At the autumnal meeting of the Associated Chambers of Commerce of the United Kingdom, held at Belfast this week under the presidency of Sir Stafford Northcote, M.P., a resolution was passed asking the Government to make the metric system compulsory in the United Kingdom.

Condy's Fluid.

Mr. H. Bollman Condy wrote to the *Sheffield Telegraph* on September 4 denying that Condy's fluid is poisonous, whereupon Mr. A. H. Allen, F.I.C., F.C.S., the public analyst, replied:—

Condy's fluid is essentially a solution of permanganate of sodium, which in characters and activity is practically identical with permanganate of potassium. The official internal dose for permanganate of potassium is from 1 to 3 gr. When I analysed Condy's fluid some years since I found it to contain about $1\frac{1}{2}$ per cent. of permanganate, so that 200 gr. would contain the maximum medicinal dose. Assuming that a wine-glass would hold 800 gr. it follows that this quantity of Condy's fluid would contain fully four times the maximum medicinal dose. Such a dose would certainly produce most dangerous consequences, and I should be much surprised if it did not kill the taker outright.

New Chemical-works.

The Devon Arsenic-mining Company has restarted Wheal Friendship, at Marytavy. About twenty hands are employed in preliminary work for a new experiment in mining, and, if practicable, the work will be carried out on a larger scale than hitherto.

A large piece of land has been purchased at Cledford Bridge, Middlewich, by the Patent Electrolytic Company, with which Messrs. Pilkington, St. Helens, are closely identified, and a subsidiary company has been formed for the manufacture of chemicals by a new electrical process. The news has been welcomed in Middlewich, which has suffered from the trade depression consequent upon the closing of the Cheshire Alkali-works. Another works is also expected to be built in the same neighbourhood.

Cyanide Suicide.

An inquest was held at Olerkenwell on September 4 respecting the death of Alexander Edward Sarti, an electroplater and gilder, who was convicted, in a case which created a sensation some years ago, of receiving silver ingots stolen from a Midland Railway van. It appeared from the evidence that the deceased had got some stolen bank-notes in his possession, and he feared arrest so much that he drank a quantity of cyanide-of-potassium solution which he used in his business.

Fires.

A fire broke out on August 30 in the shop of Mr. Jackson, chemist, North Gate, Hartlepool, after it had been closed for the night. Before the flames could be extinguished considerable damage was done.

Fire broke out on August 31 at the premises of Messrs. Waller & Riley, chemists and druggists, Rochdale. It was caused by a lad accidentally igniting some turpentine, but the flames were quickly subdued.

Licences for the Drug-trade.

Off wine-licences have been granted to the following retailers, most of them being registered chemists and druggists:—

Mr. J. V. Mainprize, Bridlington.
Mr. R. Marsh, High Street, Stamford.
Mr. Frank Mays, Gun Street, Reading.
Mr. Francis Brunt, Ashby-de-la Zouch.
Mr. Walter Nall, 41 Dale Street, Milnrow.
Mr. J. W. Fish, Astley Street, Dukinfield.
Mr. Alfred Sargent, High Street, Watford.
Mr. Thos. Bentley, 27 Stoke Road, Hanley.
Mr. C. G. Crooke, High Street, Bromsgrove.
Mr. J. Hewlett, Ethelbert Terrace, Margate.
Mr. D. Evans, Northdown Terrace, Margate.
Mr. R. R. Gaskell, Oldham Road, Rochdale.
Mr. Job Hughes, Barbourne Road, Worcester.
Mr. Samnel Jessop, Manchester Road, Nelson.
Mr. Wilson, 3 Silver Street, Bradford-on-Avon.
Mr. Edwin Kent, 28 Bolton Street, Ramsbottom.
Mr. John Hy. Waldron, 79 Broad Street, Hanley.
Mr. Josiah Walford, High Street, High Wycombe.
Mr. J. D. Harries, Hamilton Terrace, Haverfordwest.
Mr. F. W. Jackson, Stockport Road, Ashton-under-Lyne.
Mr. J. Blackett Foggett, managing director of Foggett's Drug Company (Limited), Leigh.

An off spirit-licence has been granted to Mr. Thos. Wilkinson, chemist, Crook, Durham, by whom an off-wine licence was obtained a year ago.

At Chester-le-Street Brewster Sessions last week application was made by Mr. T. F. Newton, chemist and druggist, Chester-le-Street, for an off beer and spirit licence. Mr. Newton already holds a wholesale licence, and it was stated that he would be willing to give an undertaking that the shop would be closed on Sundays, but as he did not appear personally the licence was not granted.

Mr. James Watt, chemist and druggist, High Street, Burnham, applied at Latchingdon Brewster Sessions on August 26 for a beer-dealer's additional retail licence. A petition signed by the Vicar, Curate in charge, the Vicar of an adjoining parish, members of the Urban District Council, two magistrates, two County Councillors, and other prominent personages in favour of the licence being granted was handed in, but the application was refused.

At Broxton Petty Sessions on August 26, application was made for a renewal of a wine and spirit licence to Mr. George Shuttlewood, trading as George Shuttlewood & Co. (Limited), chemist, Malpas. Asked if when he got a licence in 1893 he was trading in his own name, applicant said he was not. He was trading at that time as a limited-liability company, but when his solicitor applied for the licence he was told that he (applicant) must get it in his own name. The application was left over till the adjourned licensing-meeting.

The Mixture to be Analysed.

At an inquest held at Hastings on August 28 on the body of a child named Avery, aged 9 months, the mother stated that she went to a chemist (the name was not divulged) and asked him to give her some medicine for deceased, who was suffering from diarrhoea and sickness. He did so, and she gave the child a teaspoonful every four hours. After the third dose she noticed a change in the child, and sent for a doctor, but death occurred before his arrival. The Coroner said that, having regard to a communication made to him by the doctor, he had given instructions for the bottle of medicine and the contents of deceased's stomach to be analysed. The inquest was therefore adjourned until September 12.

Wholesale Druggists' League Cricket Championship.

The match played at Brockley on September 2 between Stevenson & Howell and "Kepler" (Burroughs, Wellcome & Co.) resulted as follows:—"Kepler" C.C. (for 4, declared), 129; Stevenson & Howell, 22.

To Move the Pharmaceutical Council.

A meeting of the committee of the North-East Lancs Chemists' Association was held at Blackburn on Thursday evening, when the Secretary (Mr. Lord Gifford) was requested to communicate with the various members of the Pharmaceutical Council with a view to the following motions being discussed at the Council's October meeting:—

That the Council be petitioned to prepare (1) an amendment to Clause 2 of the Companies Bill, embodying its views in reference to company pharmacy; (2) a Pharmacy Bill; and that steps be taken to secure consideration of such amendment and Bill before the Companies Bill is again laid before Parliament.

It was arranged to hold a general meeting of the N.E.L.C.A. on September 19, to hear reports from the deputies to the Plymouth Conference.

A Chemist Assaulted.

At the Lambeth Police Court on September 5, George Nicholls was fined 40s. and costs, or one month, for committing an unprovoked assault on Mr. J. A. Redfern, who described himself as a chemist, residing at Upper Kennington Lane.

A First Offence.

At the Southwark Police Court on September 6, a lad named King was charged with stealing a gold ring, the property of his employer, Mr. J. B. Menzies, chemist, Trinity Street, Southwark. At the request of the prosecutor prisoner was dealt with under the First Offenders Act, and discharged with a caution.

Irish News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

Pharmaceutical Society of Ireland.

Applications for the October Preliminary examination must be lodged with the Registrar not later than 11 o'clock on the morning of Tuesday, September 19.

Mr. Downes Convalescing.

We are glad to learn that Mr. Robert J. Downes, President of the Pharmaceutical Society of Ireland, has so far recovered from the effects of his recent accident as to be able to leave Dublin for a short period of convalescence.

Chemists' Assistants' Association.

The reopening of this Association for the winter session will take place towards the end of October, and due notice of the fact will be given to the members. New comers and non-members desirous of joining should communicate with Mr. R. J. Savage, the Hon. Secretary, or with any of the committee.

Changing his Venue.

Mr. John McConkey, druggist, Leadbeater Street, Belfast, is about to remove to new premises in Divis Street, Belfast.

From Baton to Lancet.

Constable Bradley, a Belfast policeman, has been awarded a prize for practical pharmacy by the examiners of the Royal Hospital, and as the result of a further examination he has exchanged the constabularyman's baton for the physician's lancet. He intends to practise medicine in Kilkil, a thriving town with a suggestive name, in the county Clare.

Analysts' Appointments.

Sir Charles Cameron is the new analyst to the Nenagh Union.

Mr. R. F. Blake, Belfast, is the chosen analyst for Coleraine Union, at a salary of 10*l.* a year.

The Kilkenny County Council have appointed Sir Charles Cameron as analyst for the entire county, at a salary of 60*l.* a year.

Mr. D. J. O'Mahony has thanked the Skibbereen Board of Guardians for appointing him analyst at 10*l.* a year, but declines absolutely to analyse water without being paid specially for such analysis.

On September 2 the Board of Guardians of Thurles Union appointed Mr. W. F. Warren, of Dublin, as analyst, at 10*l.* per annum. Sir Charles Cameron was an applicant for the post, but several Guardians stated that Sir Charles had his hands full enough already.

Sir Charles Cameron wrote to the Castlebar Guardians expressing his willingness to act as analyst to the Union for the annual sum of 8*l.*, with 2*s.* 6*d.* for every analysis over twenty-four. As there was no other applicant, the Board agreed at their meeting on September 2 to allow Sir Charles the sum of 8*l.* for the work.

At a meeting of the Portlanna Board of Guardians held on August 28 a letter was read from Sir Charles Cameron offering to do the analyst's work for 7*l.* 10*s.* per annum and 2*s.* 6*d.* for every sample analysed after twenty-four. He placed no limit on the number of samples of tea or water. It was resolved to offer Sir Charles 5*l.* a year for twenty-four analyses.

The question of the amount to be paid to the analyst was brought forward at a meeting of the Roscommon County Council on August 29. It was ultimately resolved to ask Sir Charles Cameron to name the salary for which he would discharge the duty of analyst to the county as heretofore, and the additional salary he would require to examine medicines for all the Unions in the county.

At a meeting of the Longford Guardians on August 26 it was stated that Dr. Tichborne had offered to act as

analyst to the Union at a salary of 3*l.* a year, provided not more than twenty-four samples were sent in during the year. After discussion it was resolved to ask Dr. Tichborne, whether, if samples were sent on to him now, he could analyse them before the end of next month, and also to write to the Local Government Board asking whether it was necessary to have samples of every medicine and drug analysed.

The question of the appointment of a public analyst came up at a meeting of the Birr Board of Guardians on September 2. Dr. Thomas Woods, who had been county analyst up to the present, was again proposed, and the Board were unanimous in favour of his appointment. Dr. Woods declined to act, however, on the ground that, the drug-contractor being a local man, it might be said that they would work into each other's hands if he (Dr. Woods) were appointed. He recommended that the Board should appoint Sir Charles Cameron, and they decided to communicate with that gentleman.

At a meeting of the Tipperary Board of Guardians last week a letter was read from Sir Charles Cameron, in reply to a communication from the Guardians, stating that the Local Government Board transferred him with all his rights as county analyst from the Grand Jury, and he was irremovable as county analyst unless for good cause and with the consent of the L.G.B. If, therefore, the Board wished to appoint him as their analyst there was no necessity to delay the appointment, as most of the Boards throughout Ireland had already appointed their drug-analysts. The work was altogether new, and was not to be carried out under the provisions of the Standard Drugs Act under which public analysts had formerly been appointed. One of the Guardians thought that Sir Charles had too much to do already. His assistants analysed the drugs; Sir Charles merely signed the certificates. They had two analysts in Cork and one in Limerick, who were able to perform all their duties, and he was in favour of selecting one of those; but on the statement of the Clerk that if the appointment were not ratified before September they would lose a portion of the grant for payment of the salary, Sir Charles was unanimously appointed to the office.

Too much Physic.

The Local Government Board have written to the Edenderry Board of Guardians asking for an explanation by the medical officer of the Edenderry Dispensary District as to the expenditure in respect to medicine and medical and surgical appliances, the medical inspector of the Local Government Board having reported that it was much in excess of what it ought to be. This letter was referred by the Guardians to the doctor for reply.

The Orders Mixed.

Last week a sworn inquiry was held at Ballyshannon by Dr. Clibborn, Local Government Board medical inspector, with reference to some discrepancies in the supply of drugs and medicines to the Kinlough Dispensary by the contractor, Mr. Boyers, of Sligo. Dr. Crumley deposed to ordering drugs on May 13, and about a fortnight afterwards receiving a supply of drugs with an invoice. The goods sent did not correspond with the invoice, nor were they according to his requisition, and he wrote to the Guardians pointing out the overcharges and asking them to look into the matter. On hearing from the Guardians the contractor sent down an assistant, who went over the goods with him and asked him not to bring the matter before the Guardians. The total amount of the first invoice was 18*l.* 12*s.* 6*d.*, but this amount was amended to 10*l.* 0*s.* 1*d.* Enumerating various items, he said:—

Three pounds of acetum scillæ was 8 oz. short, and 1 lb. of ether was 4 oz. short. He ordered $\frac{1}{2}$ lb. of chloroform, and 1 lb. was sent; 4 lbs. of creosote was charged for instead of 2 oz.; 1 lb. of iodoform was charged and only 4 oz. ordered; 2 lbs. of oxymel scillæ was sent and 10 lbs. charged; 1 lb. of Easton's syrup was ordered, $1\frac{1}{2}$ lb. sent, and 2 lbs. charged for; 1 lb. of tincture of nux vomica was ordered, $1\frac{1}{2}$ lb. sent, and 2 lbs. charged for; 3 lbs. of tincture of squills was ordered, 4 lbs. charged for, and 3 lbs. sent. There were about a dozen other similar discrepancies, including one in which 18*s.* was charged for 1*s.* 6*d.* worth.

Dr. Crumley added that he had known Mr. Boyers for six years as a most respectable chemist. Mr. Henry Boyers,

the contractor, explained that he was ill when the order came for Kinlough Dispensary, and from inquiries he found that at the time that this order was being attended to another order was being made up for another dispensary. The goods for each were left on separate tables, and the packer unconsciously mixed them. The mistake was not found out until he had been written to by the Ballyshannon Guardians. Dr. Olibborn asked Mr. Boyers who was in charge during his absence. Mr. Boyers stated that Mr. Ernest Young, a qualified assistant, was in charge, but he did not think it necessary to bring him there. With regard to the discrepancies in the prices, these had been bungled in some way, the only explanation he could obtain from the clerk being that she had two lists before her and she copied some from one and some from the other. Mr. Boyers' assistant having denied the statement that he requested Dr. Crumley not to inform the Guardians, and there being no more evidence to offer, it was submitted for Mr. Boyers that no attempt had been made to defraud, as nearly all the discrepancies were so glaring. Dr. Crumley stated that he would simply submit the evidence to the Local Government Board, and the proceedings terminated.

Scotch News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

Chloroform for the Transvaal.

It is reported that in anticipation of war in the Transvaal the War Office has invited tenders from Messrs. Duncan, Flockhart & Co., of Edinburgh, for 1,300 half-pints of chloroform for use at the Cape.

Too Early Birds.

At Airdrie Sheriff Court, on September 5, Messrs. Watson Brothers, aerated-water manufacturers, Court Bridge, were fined 40s. and 40s. expenses for employing women and young persons before hours on two occasions.

Dundee University College.

Professor E. Weymouth Reid, F.R.S., Dean of the Medical Faculty of St. Andrews University, informs us that the whole of the five years' curriculum, including hospital-practice, for the medical degrees of the St. Andrews University, and other medical qualifications, can now be obtained at the Dundee University College.

For the Second Time.

At Falkirk Sheriff Court on September 1, John McNaughton was charged with maliciously smashing a plate-glass window in a chemist's shop at Camelon. He pleaded guilty. The window was valued at 5*l.* 3*s.* 6*d.*, and the Fiscal stated that the accused had been convicted a year ago for breaking the same window.

Another Brave Chemist's Assistant.

At a meeting of the Aberdeen Town Council on September 4, Lord Provost Fleming presented one of the Royal Humane Society's parchments to Mr. Alfred Swan, druggist's assistant, Rosemont Place, Aberdeen, for saving the life of a child who had fallen into the river Dee, and was on the point of being drowned.

The Servant-girl and the Baby.

At Glasgow High Court on August 31, a servant-girl, 16 years of age, named Kate Elizabeth Beattie, was charged with having, amongst other things, administered laudanum to her employer's child, 17 months old. Mrs. Fairley, the mother of the child, was out visiting, and the child was left in charge of the prisoner. When Mrs. Fairley returned she found the house disordered and unoccupied, and a piece of paper on the kitchen table on which prisoner had written in

pencil that she had given the child twopennyworth of laudanum. The child was found unconscious in the cradle and was for some time in serious danger from opium poisoning. Jane Stevenson, employed in the shop of Dr. Daniel Ferguson, Dumbarton Road, Glasgow, remembered the accused coming to the shop and asking for twopennyworth of laudanum. When she inquired whom it was for the girl said it was for her mistress, and witness was satisfied, and supplied her. The bottle produced was the one accused brought. It had a white label on it, and witness put a red label over the white one, with the words, "Laudanum, poison." Cross-examined: The girl had been in the habit of coming to the shop for a former mistress. She did not warn her that there was poison in the bottle.

Accused, giving evidence in her own defence, said she had got the laudanum for toothache, and gave the child a teaspoonful because caraway-seeds would not pacify him and he was getting red in the face. After retiring for half-an-hour the jury returned a verdict of guilty of administering laudanum, but without intent to do injury.

Lord Young: But she intended to give it? The Foreman: Yes.

Lord Young: With what intent? The Foreman: Without any.

Lord Young: Is that the verdict of the jury?—Yes.

Another charge against the prisoner was for stealing a watch, and on this charge also they found the prisoner not guilty.

Lord Young: The prisoner is discharged. I will have another jury.

French News.

(From our Paris Correspondent.)

THE ANTI-PLAGUE SERUM—The demand for this serum at the Pasteur Institute during the past ten days has been considerable, but Dr. Metchnikoff hopes to be able to supply all that may be required for Portugal, Spain, Italy, Turkey, and other countries without encroaching on the reserve which is kept in the event of its being required in France. The serum has been prepared at the Institute for some four years. Its efficacy is declared to be beyond doubt. The Institute has sent a mission to Portugal to study the bubonic plague there. Dr. Albert Calmette, Lille, and Dr. Salimbeni, Paris, are on the mission.

KEROSENE FOR MOSQUITOES.—The possibility of destroying larvæ by kerosene, proposed by Mr. Howard, by dropping the oil on the surface of stagnant ponds where mosquitoes mostly lay their eggs has been disputed. An Englishman, Mr. Samuel Hayes, has made some experiments on this subject at his Mentone villa. He finds that five drops of kerosene poured on the surface of a pail of water sufficed to kill the four or five hundred larvæ it contained in one or two hours. A teaspoonful dropped over the surface of a lake containing about 100 cubic yards of water killed in a few hours some thousands of larvæ that were floating on the surface.

A FRANCO-GERMAN COURTESY.—A German commercial traveller, who has been visiting the wholesale firms in Paris on behalf of a manufacturer of druggists' sundries across the Rhine, related the other day details of a rebuff he met with from the head of a well-known firm here. I take it that Mein Herr had been insisting on the quality of his wares with more than usual persistency, for the French buyer said, "You must excuse me, but I have just been to see my doctor, and he recommends me to talk as little as possible for the next month, so that every minute I am conversing with you may mean a year off my life." The German promptly produced a sheet of paper and a pencil and asked the prospective buyer to write his order, but business did not result.

A LEADING PROFESSOR OF CHEMISTRY.—M. Haller, who has just been appointed to take the late M. Friedel's place as professor of organic chemistry at the Paris Sorbonne, is one of the most active and intelligent of the little band of

men who are anxious to see France regain her importance in the wholesale chemical and drug trade. M. Haller has been professor of organic chemistry at the Nancy Faculty of Sciences for some years. He has done excellent work in that town, and the Chemical Institute, in the capital of French Lorraine, is an enduring monument of his activity. In 1897 he was awarded the Jecker prize by the Paris Academy of Sciences for his work during the last twenty years. He has particularly studied camphor and its derivatives, coal-tar colours, and the phthaleines.

THE "ORDER OF PHARMACISTS."—The proposal made some time ago to establish an Order of Pharmacists in France similar to that already existing for barristers, &c., has attracted some public attention, and several of the Paris newspapers have published leading articles in which the evils of cutting and other subjects with which we are only too familiar are treated as something quite new by the brilliant "chroniqueurs" of the boulevard press. Flaubert's Homais and Molière's apothecary's syringe are necessarily alluded to, and we have the anecdote of the laboratory-porter who sold corrosive sublimate for ipecacuanha, an allusion to the price of potassium iodide (I have myself seen a man bargain over the price of this and walk out of the shop rather than pay an extra halfpenny), the scarcity of good quinine, and a joke about bread-pills and Parisian water.

A PROVINCIAL OPINION.—There is in Paris a young journal, called *La Pharmacie*, claiming to be an independent journal published in the interests of the trade, but which, rightly or wrongly, is supposed by some to be the standard-bearer of French patent-medicine manufacturers. At the last general meeting of the Union Audoise Syndicat of Pharmacists M. Bourdin, speaking about the flood that seems ready to swallow up French pharmacy, said: "We hope to persuade you that if the malady is great, it is not without remedy. Read, in order to be convinced, the pages at the services of the enemies of pharmacy; ask M. Félix Gouillon, chief editor of *La Pharmacie*, what he thinks of the present movement against patent medicines. If he will be frank, this dear M. Gouillon, he will tell you that those whose defender he has constituted himself are greatly afraid, and justly so, by all that has been said and, above all, done at the last pharmaceutical congresses. They feel they are on moving ground that may give way under them, that patent medicines are not selling so well, that they will soon perhaps have no sale at all, and that their proprietors will have to seek a better investment for their capital which no longer brings in much interest."

OLD PARISIAN PHARMACY.—The Paris journal *La Science Française* has published a chatty article on the Paris School of Pharmacy, in which are given some interesting details on the old Grocer-Apothecary Corporation. The Corporation included four sections—apothecaries, druggists, confectioners, and wax dealers—but all joined in electing the same masters and wardens. The latter, besides visiting the stock of their own Corporation, acted as inspectors of weights and measures for five other leading Corporations. They were most jealous of this, as well as their other privileges, and after fierce disputes their rank was admitted as second of the Paris Corporations, the Drapers alone taking precedence of them in State processions, &c. The apprenticeship was for six years, the indentures cost 88 livres, and the "maîtrise" (now replaced by the diploma) 600 livres; the number of apothecaries was consequently limited. In 1711 Paris boasted but twenty-five. "And now," concludes the writer, "pharmacy returns to its ancient pomps and vanities. Grocery invades it, products are manufactured wholesale in factories, and this has replaced the velvet-capped, gold-spectacled pharmacist who ground and mixed, and slowly and skillfully prepared in his sacred mortar, with method and discretion, his therapeutic products."

DRUGS to the value of 15,500*l.* were imported into Nicaragua during 1898.

AMONG the imports to British North Borneo in 1898 were perfumery valued at \$6,519, against \$3,399 in 1897; opium, \$96,358, against \$80,853. Among the exports were camphor, \$37,047, against \$30,913 in 1897; and opium, \$7,739, against \$1,089.

Australasian News.

Chiefly from "The Chemist and Druggist of Australasia" for July, 1899, of which copies may be obtained from the Publisher, 42 Cannon Street, E.C., at 6d. each.

ADOPTION OF THE B.P. 1898.—The Pharmaceutical Society of Tasmania has issued a circular announcing that it had been resolved to notify all medical practitioners in Tasmania that on and after October 1, 1899, every prescription will be dispensed in accordance with the British Pharmacopœia 1898, unless distinctly and explicitly otherwise ordered.

EARLY-CLOSING IN NEW SOUTH WALES.—A Bill to shorten the hours of labour in shops is one of the Government measures to be introduced during the current year. In New Zealand chemists have had experience of such a measure for some years, and have recently taken steps to petition the Government to remove chemists' shops from the list of exemptions from the Act.

THE PROPOSED VICTORIAN PHARMACEUTICAL FORMULARY has been advanced a step. On July 20 the joint Hon. Secretaries issued a circular to all pharmacists in business in Victoria, asking co-operation and assistance, the latter to take the form at first of a list of articles, formulæ for which it is thought should be provided, especially where proved working-formulæ can be supplied. The object sought to be obtained by this movement, it is declared, is to endeavour to counteract the increasing practice in medical prescriptions of ordering proprietary articles, the composition and strength of which are alike unknown to the prescriber and dispenser.

VICTORIAN TARIFF CHANGES.—The following decisions relating to goods not specifically mentioned in the Customs-tariff have been made by the Department:—Succins rhéados (under 25 per cent. alcohol), 12*s.* per gal.; Cerebos salt, 1*l.* per ton; Quibell's dog-soap, 2*d.* per lb.; Quibell's disinfectant toilet-soap, 4*d.* per lb.; washing-soda, 2*l.* per ton; Soleshine (dressing), 25 per cent. *ad val.*; starch powder, 2*d.* per lb.; straw-hat polish, 2*s.* per gal. The following goods have been classified as free of duty:—Methyl bichloride, panopneptone (preparation of infants' and invalids' food), pitch oil, septose, sero-guaiacol, sparklets (compressed gas), sterilin (preservative), liquid thiol, "Tickcure" sheep-dip, and vanillin.

CANTERBURY (N.Z.) PHARMACEUTICAL ASSOCIATION.—This Association has been formed with the following officers for 1899:—President, Mr. H. I. Hobden; Vice-Presidents, Mr. R. S. Cook and Mr. H. A. Papprell; Secretary, Mr. C. Kiver; Treasurer, Mr. F. W. Smith-Ansted; Auditor, Mr. L. Bonnington; Committee: Messrs. W. Barrett, R. Cole, R. Painter, J. Bates, G. Hean, R. Parnham, S. Ross. The Association will consist of registered chemists as members, and of associates, under which class will rank managers of wholesale drug-businesses, assistants and apprentices in the wholesale and retail departments of the trade, with such other persons as by reason of scientific attainment may be deemed suitable for membership as associates. There will also be country members whose businesses are situated beyond the three-mile radius from Christchurch. The Association will supply *THE CHEMIST AND DRUGGIST* to its members.

PRACTICAL METHODS OF URINE-ANALYSIS.—The little book bearing the above title appears to fill a long-felt want. Its chief merit lies in the fact that the methods given by it are very simple, and they have been in use by a pharmacist for twenty-five years. The book is not at all pretentious, but is calculated to be eminently satisfactory to pharmacists. The language of the writer is plain, and his meaning clear; and all that is desirable for a pharmacist to know in order to intelligently perform urine-analysis has been set forth in the 58 pages of matter. The book is very neatly and strongly bound in cloth, and its modest cost [1*s.* 6*d.*; 1*s.* 8*d.* post-free] should certainly help to make it popular among pharmacists, students, and others interested in urine-analysis. —*Merck's Report.*

Colonial and Foreign News.

THE NEW P.H.G.—It is reported that the work for the fourth edition of the German Pharmacopoeia is so far advanced that the publication of the new volume may be looked for next month.

SALE OF CERESIN-MINES.—According to *Le Journal de la Droguerie*, the ceresin-mines at Schodnica and the refineries at Drokobycz, both in Galicia, Austria, have been purchased by an English company for $4\frac{1}{2}$ million florins (about 375,000*l.*).

EMBEZZLEMENT.—Alex. W. Campbell (30), a clerk in the employ of Messrs. MacLeod & Co., merchants and druggists, Manila, has been arrested on a charge of embezzling \$17,000, the property of his employers. His accounts after examination showed great confusion.

COMMERCIAL LIQUID AIR.—Two large Pittsburgh corporations have been formed with a combined capital of \$2,200,000, to manufacture liquid air. They are the United States Motor Company and the Pennsylvania Liquid Air Company. The liquid air will be used for automobiles, refrigerating-purposes, &c.

INDIAN PEPPER "BOOMING."—The *Indian Agriculturist* reports that there appears to be a very distinct "boom" in pepper in the Wynaad, a great deal of this product being planted all over the district, and at present market quotations pepper-gardens are recommended as the best profitable investment in Malabar.

PATENTS IN THE STATES.—The Patent Office at Washington has decided that a foreign patentee who does not notify it of the patent rights in his possession, or who does not publish his patent in the United States, is not entitled to protection in that country. This important decision is announced in consequence of an American having duplicated a Swiss patent.

N.W.D.A. MEETING.—Yellow-fever having broken out at Hampton, Va., near Old Point Comfort, where the annual meetings of the National Wholesale Druggists' Association and the Proprietary Association of America were to have been held, a change of locality has been decided upon, and the meetings will therefore be held at Niagara Falls from October 10 to 13.

SPANISH PHARMACY.—It is proposed in a Bill now before the Cortes that only those in possession of a diploma obtained from a Spanish university may practise as pharmacists. This rule will also apply to foreigners. The object is to prevent pharmacy being carried on simultaneously with medicine or veterinary surgery. Rules as to the sale of different articles in pharmacies are also proposed.

A CASE OF DISMISSAL.—Mr. H. B. Sharman, late manager of the soda-water factory of the Singapore Dispensary, Singapore, brought an action against his employers for wrongful dismissal. Defendants alleged carelessness and neglect of duty on the part of the plaintiff. After a lengthy hearing, during which it was alleged that the plaintiff had neglected to use ice after being specially instructed to do so (the result being that the soda-water turned out bad), Justice Hyndman-Jones gave judgment for the defendants, with costs.

VENEZUELAN CUSTOMS TARIFF.—As already intimated, a new tariff came into operation in Venezuela on September 1, the salient feature of which is a general increase of 20 per cent. on imports. The following are some of the revised rates:—Olive oil and linseed oil, 30 centimes of 1 bolivar (57c.) per kilo.; almond oils, 90 centimes of 1 bolivar (173c.) per kilo. Essences, perfumes, extracts of every kind, perfumed rice-powders and the like, scented water for toilets, pomades, cosmetics, oils, and perfumed soaps will pay 3 bolivars (579c.) per kilo.

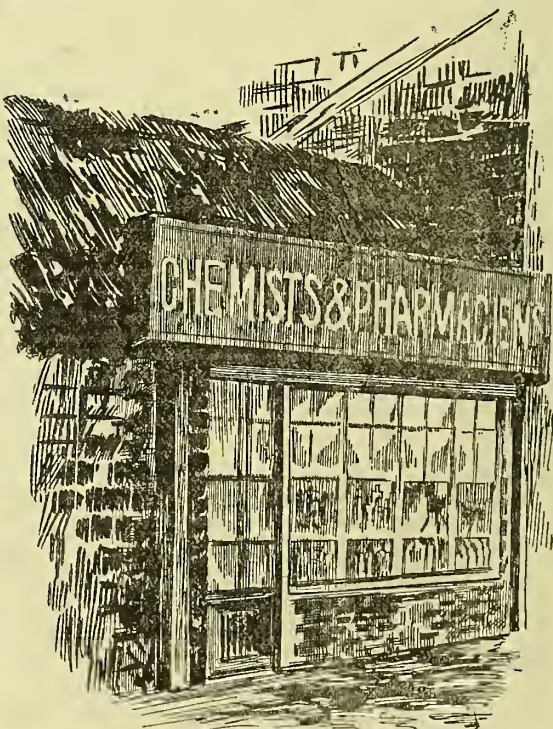
GERMAN LINE TO THE FAR EAST.—On October 4, the North German Lloyds will inaugurate a new fortnightly line to the Far East, which (according to the Berlin correspondent of the *Daily Chronicle*) has become necessary owing to the increasing trade of Germany with China and Japan. The new steamers employed on this service have been built exclusively in German yards. Ports will now be touched by German steamers which have hitherto only been visited by British

vessels—for example, Penang. Hitherto, Shanghai was the last port visited by the German mail steamers, but the voyage will now be extended to Nagasaki, Kobe, and Yokohama.

A WELCOME HOME.—A well-known Buffalo, N.Y., pharmacist, Mr. Thomas Stoddart, and his wife, returned recently from a three months' pleasure tour in Scotland. On their arrival home they were warmly welcomed by the members of the Gordon Highlanders and St. Andrews Scottish Society, of which Mr. Stoddart is President. The company marched the wanderers home to the music of the pipes, and at the house there was a sumptuous spread, with addresses, songs, and toasts, while Mr. Stoddart related his travels in Caledonia.

THE LATEST IN COMBINES.—A consolidation of photographic supply manufacturing-concerns, capitalised at \$5,000,000, has been formed in New York, under the title of the General Aristo Company. Subscriptions were asked for stock to the amount of \$2,000,000, and it is said that practically all of this amount was received in Rochester, N.Y., where most of the concerns are located. It is reported from Fall River, Mass., that a national bleachery-combine is being formed to come into operation on January 1, 1900. The large Fall River bleaching-works is reported as one of the concerns for which a bid has been made.

GIVE HIM GINSENG!—The following is a translation of a recent Imperial Chinese edict:—"I, the Empress Dowager Tze-hsi-hian-yu, &c., have perused the memorial of Liu K'un-yi, Viceroy of the Liang-Kiang province, in which he states that, being still very ill, he is compelled to pray for permission to resign his post. Liu K'un-yi has been a faithful officer for many years, and his great experience as a provincial high official has been proved by the methodical manner in which he has done his duties. I hereby grant him another month's sick-leave, there being no necessity for him resigning his post. And I further command that he be granted 4 oz. of the very best ginseng from the Imperial Treasury to give him strength and enable him to regain his health."



This is one of the newest pharmacies opened in East Anglia. A chemist who was there on holiday sends us a photograph of it, from which the rather flattering sketch has been drawn. The rest of the building to the left is a stable; in this respect the pharmacy rivals pharmaceutical examination-halls.

Legal Reports.

Sale of Food and Drugs Act.

ALLEGED INACCURATE DISPENSING.

At the West London Police Court on September 1, before Mr. Rose, Charles Wm. Andrews, pharmaceutical chemist, of 781 Fulham Road, S.W., was summoned by the Fulham Vestry, under the Sale of Food and Drugs Act, for that he did "unlawfully sell a certain compounded drug—to wit, a dispensed medical prescription—which was not composed of ingredients in accordance with the demand of the purchaser." The order was a prescription as follows:—

G. Clarke, Esq.

R	Potassii iodidi	...	...	...	5iv.
	Syr. aurantii	...	...	...	5j.
	Aq. ad	...	...	...	5vj.

M. Ft. mist.

Sig.: Two teaspoonfuls in a wineglassful of water to be taken three times a day.—C. J.

It was alleged by the prosecution that the mixture dispensed was composed of—

Iodide of potassium	...	...	4 dr. 18 gr.
Syrup of orange-peel	...	...	1 oz.
Water to make	...	...	6 oz.

Mr. H. T. Waddy appeared on behalf of the defendant.

Mr. Blanco White, who appeared for the Vestry, said that the summons was taken out under Section 7 of the Act, which was not the usual one. This section said that under a penalty of 20*l.* a prescription was to be made up exactly as wished for. If it were not, the danger to the public was terrible, as it might mean the loss of a number of lives.

Fredk. Wm. Manning, an inspector, proved the dispensing of the prescription by the defendant on July 10. In answer to Mr. Waddy, he said that he did not see Mr. Andrews make the bottle up.

Dr. Jackson, medical officer of health, said that the article pot. iodid. could be taken in large doses—in fact, in extreme cases, 2 dr. In every dose in this prescription there was $\frac{3}{4}$ gr. too much.

Mr. White: But it is most important that any prescription made up should be exact.

Mr. Rose: That stands to reason, or it would be dangerous.

Mr. Waddy: But with such a ridiculously small quantity more as this is, is there any harm?

Witness: I do not say that there would be any harm in it.

Mr. White: I am not so much troubling about the harm it would do as I am that it ought to have been accurately dispensed.

Mr. Rose: I do not think the Act ever meant such a construction as you are putting upon it.

Mr. White: But Section 7 clearly says that it must be dispensed as asked for.

Mr. Rose: I do not think the Act ever was meant to apply to the slight addition of an article to a bottle of medicine such as in this case. It was intended for absolute frauds, not trumpery cases of this sort. All the twisting in the world will not make the Act apply.

Mr. Cribb, public analyst of Fulham, said he analysed the sample in question.

By Mr. Waddy: It might be that if the ingredients had not thoroughly mixed a different result would be found, but he considered it unlikely.

Mr. Waddy: Have you ever heard such a summons as this before?

Witness: Yes, I think so.

Mr. Waddy: What! under such a section?

Witness: I don't know anything about the section.

Mr. Blanco White: He is simply here to answer the summons of the Vestry to give evidence.

Professor John Attfield, who stated that he was editor of the British Pharmacopœia for the General Medical Council, a doctor of philosophy, F.R.S., and an analyst of forty years' standing, was called for the defence. He had received a sample from the defendant. It was sealed and was labelled "187 M." By the silver process, under which any

small and officially allowable quantity of potassium chloride would be reckoned as more than double that quantity of potassium iodide, he found only 2 gr. in excess, and that was all. Even this insignificant excess was to be credited to the analytical process, not to the dispenser. In his opinion the prescribed medicine had been compounded with perfect accuracy.

Mr. Waddy: And that was not dangerous?

Witness: Certainly not.

Mr. Blanco White here said this case must go to Somerset House, and after a brief argument,

Mr. Rose reserved the point.

Mr. White: What quantity did you analyse?

Professor Attfield: I analysed 10 c.c., and I got 2.47 parts in excess of the theoretical quantity in the prescription.

Mr. Rose: Can you in any way account for this?

Professor Attfield: I should hardly like to think that the analyst would make such a mistake as to multiply the small quantity of potassium iodide in the small volume of the medicine used in the experiments so as to show the quantity present in an old 480-gr. ounce, instead of in the official 437½-gr. ounce. That would explain the high figures, but he did not suggest that Mr. Cribb would make such a mistake. In answer to a further question to the witness, as editor of the Pharmacopœia, he stated that the dose of potassium iodide mentioned in the Pharmacopœia—namely, 5 to 20 gr.—represented the average range of dose in ordinary cases for adults.

Mr. Waddy: And you think it possible that the analyst may have made a mistake?

Professor Attfield: I do think it is possible, although, of course, the theory does not seem very feasible to anyone, I will admit. I have no idea what procedure guided him in the making of his analysis.

Mr. Cribb: I analysed the sample in the usual fashion with silver nitrate, by the volumetric and gravimetric processes.

Professor Attfield: The result should have come out correct, but I still say it is possible proper allowances were not made.

The defendant then gave evidence. He said he used every care in making up prescriptions. He carefully weighed the quantity on scales which were frequently tested by the L.C.C. Impressed at the time by the probable motive of the purchaser, he was absolutely certain that he had put neither more nor less than 240 gr. of potassium iodide into the compounded medicine.

Mr. Waddy said in defence that his Worship might be surprised it had been thought necessary to bring as a witness Professor Attfield, who was such an eminent authority.

Mr. Rose: I am not surprised—I can only say that it shows your good sense.

Mr. Waddy: I am much obliged to your Worship for the compliment, and can truly say that it is a hint what to do in future with such a case as this. I must ask you to exercise your discretion in this matter and dismiss the summons. Let my client leave the court without the stigma upon him that he is careless in dispensing prescriptions. Care has been used, and the opinion of Professor Attfield as to the infinitesimal quantity in excess is sufficient to clear him from blame.

In dismissing the summons, Mr. Rose said he had the greatest doubt as to whether the Food and Drugs Act was meant to be applied in a case like this. He not think that Section 7 contained anything that applied to the case. Even if it did, he did not think, and was not satisfied on the evidence, that the trifling amount over the prescription mattered in the slightest. The Food and Drugs Act, in his opinion, was intended to deal with frauds, and had no relation to a trifling excess of an ingredient in a bottle of medicine. The seventh section should be read in the light of the preceding and succeeding lines of the Act. No reasonable person would try and twist the Act round to enforce absolute exactness in a prescription. The summons would, therefore, have to be dismissed.

Mr. Blanco White: I must ask for a Somerset House analysis in the next case—the one against Mr. Barrett—if you are against me on the point that a chemist must dispense what he is asked for exactly; then, if the Government analysis agrees with ours, I will ask you to state a case for the High Court on the point.

Mr. Rose: I will state a case with pleasure, but with regard to the Somerset House analysis, that does not bind me. I am still in my discretion, and I should be at liberty to believe the evidence of Professor Attfield, which I think I should. The Vestry are putting a wrong construction on a useful section of an Act.

Mr. Blanco White: My point is the danger to life if a chemist is allowed to be so careless.

Mr. Rose: Oh, wait till you get the danger-to-life case! You have not got it here, and it is no use our discussing what might occur if a person took so many grains of arsenic and strychnine. We are not now arguing the injurious-to-life subject, but simply was the chemist careless in dispensing this prescription?—and the evidence before me is that he has not been.

Mr. Blanco White: I do not care which case it is, but I want one upon which to take my case to the High Court.

MR. W. F. BARRETT (not a registered chemist and druggist), 123 Wandsworth Bridge Road, who was next charged, said he felt sure his prescription was accurate and the analyst wrong, as he knew perfectly well when he made it up that it was for the Vestry, as he was told so—fortunately. (Laughter.) The case against Mr. Barrett was thereupon adjourned for the analysis to go to Somerset House. Mr. Barrett was summoned for using 24 gr. extra of iodide of potassium in the same prescription.

MR. WM. ARTHUR SHEPARD, pharmaceutical chemist, 4 Greyhound Road, Fulham, was next summoned for using 26 gr. extra in the same prescription. As Mr. Rose said he was against them on the point of it being injurious, the Vestry withdrew this case, and the Magistrate allowed Mr. Shepard 3*l.* 3*s.* costs.

MR. KEITH LONGSTAFF, chemist and druggist, 811 Fulham Road, then answered a summons for using 36 gr. more than enough iodide of potassium in the same prescription.

Mr. Blanco White said he would make this the test-case, at which Mr. Oswald Hanson, who appeared for the defendant, protested strenuously against such an arrangement, as he said he did not see why his client should be picked out of four to be run in the heavy costs of a High Court action.

Mr. Rose: They may think better of it, as I cannot for a moment imagine that the Legislature intended to deal with a man's own loss in putting a little more than he need have done of an ingredient into a prescription.

Mr. Oswald Hanson subjected Dr. Jackson to a severe cross-examination as to his opinion of what constituted an excessive dose of iodide of potassium. Witness was asked whether he agreed or disagreed with the Pharmacopœia that the maximum dose was 20 gr., and he replied that, as a dose to an individual, it depended very much on circumstances.

Mr. Hanson: Is it an excessive dose?

Dr. Jackson: I say it is to start with.

Mr. Hanson: I do not want any quibbling or qualification. Is it an excessive dose?

Dr. Jackson: It is a full one.

Mr. Hanson: Is not iodide of potassium a somewhat expensive article?

Dr. Jackson: Yes.

Ultimately the summons was adjourned.

[In an interview with our representative, Mr. Blanco White said the Vestry decidedly meant to go on with the case if Somerset House agreed with them as to the analysis. It was considered most important that absolute accuracy should be adhered to by chemists. Altogether over thirty chemists were visited with this prescription, but only the four who were summoned were alleged to have erred. He also mentioned, as an instance of the different prices charged, that the cheapest was 1*s.* and the dearest 3*s.* 6*d.* The man who charged 3*s.* 6*d.* has since told us that he did so knowing that it was a vestry case.—ED.]

SWEET SPIRIT OF NITRE.

AT Ingleton Police Court, on September 1, the Ingleton Co-operative Society were summoned for selling sweet spirit of nitre which, on analysis, was found to be deficient

in nitrous ether, and also to contain an excess of water. Mr. J. D. Wardle, for the prosecution, said the sample was so bad that the analyst in his certificate would not so much as give the nitrous ether a decimal point. He did not suggest that the drug had been tampered with, for deficiency of nitrous ether was due to evaporation, and neither the prosecution nor the B.P. denied that, but recognised and allowed for it.

The public analyst's certificate showed that the sample contained nitrous ether, trace per cent.; alcohol and legitimate water, 98.88; excess of water, 1.12 per cent.; and in his observations he drew attention to the fact "that the sample was practically destitute of the real nitrous ether, which is the most active and characteristic constituent of the sweet spirit of nitre, and that the sample was thus practically valueless as a remedy."

Cross-examined by Mr. Tatham, for the defence, the inspector said he did not know that the 1885 B.P. allowed for an excess of water. He did not think the deficiency and excess of water were due to evaporation, as the sample was in a ground-stoppered bottle, and could not have been opened many times, as it was half full. He could not show where in the B.P. the words occurred to the effect that sweet spirit of nitre should contain 2½ per cent. nitrous ether.

Mr. Tatham urged that defendants were charged with not having in the drug in question something that the B.P. never stated was to be in. He contended that the B.P. stated that the sample should contain 2½ per cent., or not less than 1¾ per cent. of ethyl nitrite, which was not nitrous ether as stated by the analyst and inspector. He could bring expert evidence to prove that they were not the same.

Mr. Wardle interposed and said if Mr. Tatham was going to dispute that ethyl nitrite was not a synonym for nitrous ether, he would agree to an adjournment, but to his (Mr. Wardle's) mind, it was a schoolboy's objection.

The Bench, after a short consultation, overruled Mr. Tatham's objection, but said if Mr. Tatham liked to bring expert witnesses they would adjourn the case. Mr. Tatham, however, said an adjournment under the circumstances would be useless, and he was sorry he had raised the point. He proceeded to argue that the case was a most paltry one, and ought never to have been brought, but the Magistrates fined the defendant 1*l.*, and 1*l.* 14*s.* 1*d.* costs.

AT Swadlincote, on August 29, Lucy Staley, grocer, Church Gresley, was summoned for selling sweet nitre which the public analyst certified was entirely devoid of nitrous ether. The fine was 1*l.*, inclusive of costs.

ROBERT KITCHIN, grocer, Long Preston, was charged at Settle on the same date with selling sweet spirit of nitre which, according to the analyst's certificate, contained nitrous ether 0.10 per cent., alcohol and legitimate water 96.65 per cent.; excess of water, 3.25. Defendant, who told the Bench that he took the sweet spirit of nitre over along with the business only (*sic*) in February last, was fined 4*s.* 3*d.*, and 1*l.* 5*s.* 9*d.* costs.

SEIDLITZ-POWDERS.

AT Melton Mowbray County Petty Sessions, Charles Callis, drysalter, Melton, was fined 1*l.*, costs inclusive, for selling seidlitz-powders which were not in accordance with the B.P.

MR. RICHARD PARSONS, described as a druggist, but not on the register, and Mr. Wm. Stevenson, chemist and druggist, both of Sheepshed, were summoned at Loughborough on August 30 for selling seidlitz-powders not composed of the ingredients required by the British Pharmacopœia. In his defence, Mr. Parsons said he sold the powders in good faith, the boxes in which they were contained being stamped "Genuine." The wholesale dealers from whom he bought them had admitted that the fault was theirs, and that they were prepared to accept the whole responsibility. A similar explanation was offered by Mr. Stevenson, who stated that the powders were supplied by the same wholesale firm who supplied Mr. Parsons. The Bench expressed the opinion that defendants did not intend to deceive the public, but fined them 1*l.* 10*s.* 6*d.* each.

MILK OF SULPHUR.

At the East Riding Petty Sessions, Hull, on August 30, an adjourned summons preferred against Mr. George Kirke, chemist and druggist, Cottingham, for selling adulterated milk of sulphur was heard. The public analyst certified that the sample was adulterated with 19 per cent of sulphate of lime, but, this being challenged, the third sample was sent to Somerset House; and as the Government analysts now certified that there was practically no adulteration, the Bench dismissed the case.

Merchandise-marks Act.

OTHER PEOPLE'S BOTTLES.

In the Court of Session, Edinburgh, on August 31, before Lord Kyllachy, John McIntosh, aerated-water manufacturer Linlithgow, sought to interdict and prohibit James Lumsden aerated-water manufacturer, Linlithgow, from filling with aerated water bottles belonging to him and embossed with his name, and to have the respondent also prohibited from collecting such bottles from plaintiff's customers and using them for his own uses. The defendant said that the note should be refused in respect that the plaintiff's statements were irrelevant and insufficient; that the bottles embossed with the plaintiff's name came into the hands of the defendant in the ordinary course of business, and were used by him; and that there was no intention to deceive the public. Defendant stated further that the practice had been that followed from time immemorial, and that the plaintiff himself used bottles belonging to other manufacturers. After hearing further argument for the recall of a former judgment granting interim interdict against the defendant, his Lordship refused the recall and continued the interdict, on the ground that there was a question to be tried, and that the traffic in bottles could not go on without the permission of the plaintiff, who owned the bottles referred to.

At the Manchester County Police Court on September 4, Mrs. Burgeon (Gorton) was fined 10s. and costs for selling herb-beer in bottles bearing the name of W. F. Caroforth, mineral-water manufacturer, Droylsden. Mr. W. Cobbett prosecuted on behalf of the Manchester and District Mineral-water Trade Society.

Bankruptcies and Failures.

Re TEMPLAR E. MALINS, Woodville Road, Cardiff, Chemist.

THE trustee under this failure has issued a report, intimating that he is prepared to pay a second and final dividend of 10d. in the pound.

Re ANDREW YOUNG, High Street, Falkirk, Chemist and Druggist.

THIS debtor has granted a trust-deed on behalf of his creditors in favour of Mr. Adam Cowan, solicitor, Falkirk. A preliminary statement shows assets 115*l*, liabilities, preferable 80*l*, and ordinary 555*l*, which will give a dividend of 1s. 3d in the pound, subject to expenses of realisation and division.

Gazette.

PARTNERSHIP DISSOLVED.

Phillips, H., and Scales, W. W., under the style of Phillips & Scales, Ipswich, veterinary surgeons, &c.

THE BANKRUPTCY ACTS, 1883 AND 1890.

ADJUDICATION.

Simpson, George Barthorpe, Rosedale Abbey, Yorkshire, surgeon.

New Companies & Company News.

L.A. POBRECITA MINING COMPANY (LIMITED).—Capital 15,000*l*, in 1*l* shares. Among the objects are those of manufacturers of chemicals, medicinal and other preparations, &c.

PERMANENT COLOR COMPANY (LIMITED).—Capital 5,000*l*, in 1*l* shares. Objects: To carry on the business of dealers in oxides of metal, petroleum, chemicals, oils, paint, varnish, &c.

NEW YORK AND LONDON DENTAL PARLOURS (LIMITED).—Capital 100*l*, in 1*l* shares. Objects: To manufacture and deal in artificial teeth and dental appliances, and to fill or otherwise restore natural teeth.

CRANKSHAW'S (LIMITED).—Capital 1,000*l*, in 1*l* shares. Objects: To acquire the business now carried on at 8 Barnley Road, Accrington, Lancs, as "T. Shackleton," and to carry on the business of chemists, druggists, perfumers, oil and colour men, chemical-manufacturers, drysalers, &c. The subscribers are:—T. Shackleton, 13 Osborne Road, Altrincham, chemist and druggist; Mrs. A. H. Crankshaw, 2 Moor Gate Green, Haworth, Accrington; H. Crankshaw, and J. R. Crankshaw, both drysalers, 8 Burnley Road, Accrington; M. H. Crankshaw, 2 Moor Gate Green, Haworth, Accrington, farmer; and Miss E. Crankshaw, 2 Moor Gate Green, Haworth, Accrington. Registered without articles of association. Registered office, 8 Barnley Street, Accrington, Lancs.

W. R. EARP & Co (LIMITED).—Capital 20,000*l*, in 1*l* shares. Objects: To adopt an agreement with W. R. Earp, and to carry on business as chemical and borax manufacturers, drysalers, oil, soap, and colour merchants, makers of chemical, pharmaceutical, and other preparations, &c. The subscribers are:—W. R. Earp, Preston Brook, Warrington, tanner and chemical manufacturer; R. A. Earp, Preston Brook, Warrington, analytical chemist; S. M. Leigh, Dingle, Liverpool, schoolmaster; W. Howarth, Toxteth, Liverpool, consular clerk; T. W. McLean, 25 Flaxman Street, Liverpool, clerk; E. Berney, 31 Stuart's Road, Liverpool, clerk; and C. Dodd, 14 Stuart Road, Birkenhead, clerk. The first directors are W. R. Earp and R. A. Earp (managing director). Remuneration of R. A. Earp, 450*l* per annum and 10 per cent. of the net profits; of W. R. Earp, 350*l* per annum; of others, 100*l* each per annum.

WILLIAM BARTLETT & Co. (LIMITED).—Capital 2,000*l*, in 1*l* shares. Objects: To carry on the business of chemists, druggists, sundriesmen, drysalers, oil and colour men, dealers in hops, corn, seed, sugar, spices, and other produce, and manufacturers of essential oils, essences, extracts, scents, medicinal and other preparations, &c. The subscribers are:—R. E. Webb, 10 Queen Square, Holborn, W.C., accountant; J. J. Middleton, 62 Foxham Road, Tufnell Park, N., clerk; Miss R. E. Trinnick, 1 St. John the Evangelist Road, N.W.; R. H. Rush, 21 Bartholomew Road, Kentish Town, N.W., clerk; C. S. Knight, 43 King William Street, E.C., foreman; H. Harries, 43 King William Street, E.C., chemist; and S. Fowle, Grove House, 39 Woolstone Road, S.E., chemist. The first directors are R. E. Webb, J. W. Ramsden, W. H. Ramsden, and J. J. Middleton. Qualification, 200*l*. Registered office, 134 Upper Thames Street, E.C.

VIMBOS (LIMITED).—According to the *Westminster Gazette*, a circular is about to be issued by the liquidators of Vimbos (Limited), intimating a first dividend of 10s. per pound to the creditors. It is understood that the creditors will ultimately receive 20s. in the pound, but that there will be nothing for the shareholders.

PRICE'S PATENT CANDLE COMPANY (LIMITED).—The directors' statement, to be submitted to an extraordinary general meeting to be held in London on September 8, states that the balance of profit in hand in March was 61,448*l*. From this has been deducted dividend (17s. 6d. per share) paid March 11, 32,812*l*; reserve fund, 10,000*l*; and 12,500*l* on account of depreciation on fixed properties; leaving a balance of 6,136*l*. The profit of the six months to June 30 last, after deducting income-tax, was 44,811*l*. The dividend

to be declared at the meeting (18s. per share) will absorb 33,750*l.*, leaving in hand to be carried forward 17,197*l.*

NESTLÉ'S AND ANGLO-SWISS COMPANY TO AMALGAMATE—The amalgamation of the Anglo-Swiss Condensed Milk Company, of Cham, and the Nestlé Milk Company is rumoured. The capital of the former is at present 20,000,000*fr.* (800,000*l.*), and that of the latter only 2,000,000*fr.* (80,000*l.*); but as the Nestlé Company has yielded an average of about 20 per cent during the past decade, the proprietors stipulated that the fusion of the two concerns should take place on an equal basis. The scheme proposed is to establish a new company with a capital of 40,000,000*fr.*, of which one-half would be the purchase-price of the Nestlé undertaking. The Nestlé Company would return 4,000,000*fr.* of this in the form of 4 per cent. bonds in favour of the shareholders of the Anglo-Swiss Company, and the directors of the former undertaking would become interested in the management of the new company. [The Anglo-Swiss Company explain that the proposal came from the Nestlé Company, and was declined because the division of the share capital did not please the former; another and better offer was made (two-thirds of the shares to the Anglo-Swiss, and one-third to the Nestlé), but this also was declined. The Anglo-Swiss Company made an offer of amalgamation—this time on the basis of subscribing to the share capital of the new company in the proportion of three-fifths for the Anglo-Swiss and two-fifths for Nestlé, the former company to contribute at the same time 3,000,000*fr.* more to the working capital than Messrs. Nestlé. This offer was not accepted, and the negotiations ceased. The matter will come up again at a general meeting of the Anglo-Swiss shareholders on September 12.]

ULSTER CHEMISTS (LIMITED).—The *Irish Review* publishes a reply to the recent attack upon this company by the *Investors' Review*. While not disguising the fact that there has been dissatisfaction among the shareholders of the company, the *Irish Review* defends generally the action of the directors, and explains their inability to fulfil the promise of the prospectus by stating that there was a loss of nearly 1,000*l.* in the Derry business, and a disastrous fire in the Newry branch, although fully covered by insurance, handicapped the business in that town and tended largely to decrease the profits which would have accrued from that branch. These losses have been paid off, and the directors are now able to pay the preference dividend and 2½ per cent. to the ordinary shareholders. The payment of the preference dividend, due on June 1, was delayed until the stocktaking had been completed; accordingly this dividend has been taken over to the next account. The explanations of the *Irish Review* do not appear to us to meet the case. The failure of one branch and a fire at another ought not to have upset the calculations of the promoters of the company, and it is they, and not the *Irish Review*, who should reply to the criticism of the *Investors' Review*.

Trade-Marks Applied for.

Anyone who objects to the registration of a trade-mark must address the Comptroller-General, Patent Office, Chancery Lane, W.C., within a month of the date of publication.

When "no claim" is mentioned in the subjoined abstracts, this implies "no claim for the exclusive use of the word" in inverted commas.

(From the "Trade Marks Journal," August 23, 1899.)

"CURATAS," name of firm, devices, &c. (essential particulars are "Curatas" and devices); for perfumery, &c. By Musgrave & Co., 11 St. John Street, E.C. 223,171.

"CINETIA"; for perfumery. By Warrick Brothers, 7 Portpool Lane, E.C. 223,746.

"ALBATROSS," "BOADICEA," "CHECKMATE," and "LORNA DOONE"; for perfumery, &c. By C. Thomas & Brothers (Limited), Broad Plain Soap-works, Bristol 224,458, 224,460, 224,462, 224,464.

"DAINTY DAME," "GOLDEN DAYS," "CHIVALRY," and "BAL MASQUE"; for perfumery &c. By the Erasmic Company, (Limited), Bank Quay, Warrington. 224,578, 224,579, 224,583, 224,595.

(From the "Trade-marks Journal," August 30, 1899.)

Device of crossed scimitars; for chemical substances. By Scourso, Howard & Co, 22 Great St. Helen's, London. 224,040.

"DÖRRITT"; for chemical substances. By Clemens, Dürr & Co., Gemersheim, Germany. 224,114.

"PRALLOFORMIN" (no claim for "Prall"); for chemical substances. By A. Zimmerman, 9 and 10 St. Mary Axe, E.C. 224,978.

Device of two specimen jars and initials (essential particular, combination of devices); for chemical substances. By the Cork Chemical and Drug Company (Limited), 80 Patrick Street, Cork. 222,779.

"PILENE" (no claim for "Pile"); for an ointment or salve. By A. A. Hunt, 5 Grosvenor Street, Liscard, Cheshire. 223,316.

Triangular device with the letters "INE"; for chemical substances. By J. Morgau Richards, 46 Holborn Viaduct, E.C. 223,940.

"OSMAZON" (no claim for "Osmazone"); for beef-tea. By Coleman & Co. (Limited), Lower Westwick Street, Norwich. 224,094.

"Koi Koi"; for mineral and aerated waters. By W. Meadowcroft & Son (Limited), 24 Regent Street, Blackburn. 223,686.

Device on label and wording (essential particular, the device); for mineral and aerated waters. By the Mull and Iona Aerated-water Company, Columbia Buildings, Tobermory. 222,233.

"QUABANG" and "QUABOAG"; for mineral and aerated waters. By Quabang Spring Water Company, North Brookfield, Mass., U.S.A. 224,640 and 224,707.

"DULCE FAR NIENTE"; for perfumery, &c. Also picture of girl holding a daisy; for soap. By the Erasmic Company (Limited), Bank Quay, Warrington. 224,587 and 222,068.

(From the "Trade Marks Journal," September 6, 1899.)

"TABULOID" (no claim for "Tabulo") for photographic chemicals. By J. J. Griffin & Sons (Limited), 20-26 Sardinia Street, W.C. 224,745.

"DIURETIN"; for chemical substances. By Knoll & Co., Ludwigshafen-on-Rhine, Germany. 223,214.

"OXYDONE" (no claim for "Oxydo"); for chemical substances. By Wm. Proctor, 7 New Bridge Street, Newcastle-on-Tyne. 223,315.

Device of milestone and wording (essential particular is the device); for medical pills. By S. Miles, 2A Lonquor Road, Mile End, E. 223,763.

"SPARKLENE"; for chemical substances. By Aerators (Limited), 56 Broad Street Avenue, Blomfield Street, E.C. 224,489.

"GESTONAL"; (no claim for "Gesto"); for medicines. By C. R. Butt, 2 Roskell Terrace, Putney, S.W. 225,244.

"GRULA," and wording in square (essential particular, "Grula"); for a tonic horse-food. By J. Thorley (Limited), Caledonian Road, N. 224,494.

"BARLIKOS" (no claim for "Barley"); for powder for temperance drink. By Isabel Charles, 94 Oakfield Road, Croydon. 224,653.

"MARTOLIA"; for toilet-requisites. By J. W. Davies, 85A Forest Road, Dalston. 224,367.

"PINAFORE"; for perfumery and toilet articles. By C. Thomas & Brothers (Limited), Broad Plain Soapworks, Bristol. 224,468.

"GODDESS"; for perfumery and toilet-articles. By H. & T. Walker, 41 Eastcheap, London. 224,522.

"CLINCHER"; for perfumery and toilet-articles. By T. Hedley & Co., City Road, Newcastle-on-Tyne.

SMALL BOY: "I see you advertise for a boy, sir. Will I do?" **GROVER:** "Well, we want a strong and active young chap. You look all right." **S.B.:** "What will I have to do?" **GROVER:** "Well, you see, we are introducing a new fly-paper warranted to kill all the flies in the room in short order. Your work will be to catch flies and stick 'em on samples of the paper in the window."

Canadian Formulas for the B.P.

WE have on several occasions (April 1, page 536, and May 20, page 822) called attention to the useful work that Professor J. E. Morrison, Editor of the *Canadian Pharmaceutical Journal*, a leading Canadian pharmacist, has been doing in the province to promote the popularity of the British Pharmacopœia, especially to assist in the compilation of the Colonial and Indian Addendum. The last issue of his journal contains a number of formulæ which are suggested by a committee, which he had appointed some time ago to focus medical and pharmaceutical ideas on the latter point, and we now append the formulæ which this committee recommend. They will need careful revision.

ELIXIR SIMPLEX.

Tincture of orange ...	2 oz. or 100 c.c.
Tincture of lemon ...	$\frac{1}{2}$ oz. or 25 c.c.
Orange-flower water...	2 oz. or 100 c.c.
Alcohol (90-per-cent.)	3 oz. or 150 c.c.
Kaolin } Water }	Of each a sufficiency

Mix the tinctures, orange-flower water, alcohol, syrup, and 4 oz. (or 200 c.c.) of water with 2 oz. of kaolin; set aside for 24 hours; filter; wash the filter with sufficient water to make 20 oz. (or 1,000 c.c.).

EMULSUM OLEI MORRHUÆ.

Cod-liver oil ...	8 oz. or 500 c.c.
Gum acacia (in powder) ...	2 oz. or 125 grammes
Syrup ...	1 oz. or 62½ c.c.
Oil of bitter almonds	5 minims or 12 drops
Water ...	a sufficiency.

Triturate the cod-liver oil and acacia; add 5 oz. (or 313 c.c.) of water, and stir briskly; then add bitter-almond oil, syrup, and water to 16 oz. (or 1,000 c.c.).

NOTE.—For the administration of cod-liver oil, or as a basis for combination with the hypophosphites, creosote, quinine, &c.

EXTRACTUM APOCYNÏ LIQUIDUM.

Apocynum (in No. 60 powder) ...	20 oz. or 1,000 grammes
Glycerin ...	2 oz. or 100 c.c.
Alcohol (90-per-cent.) to make ...	20 oz. or 1,000 c.c.

Process the same as for liquid extract of hamamelis [B.P.].

NOTE.—Valuable diuretic and cardiac stimulant. Occasionally used. Dose: 2 to 5 minims.

EXTRACTUM BUCHU LIQUIDUM.

Buchu-leaves (in No. 40 powder) ...	20 oz. or 1,000 grammes
Alcohol (90-per-cent.) to make ...	20 oz. or 1,000 c.c.

Process the same as for liquid extract of hamamelis.

NOTE.—The tincture is rarely used in Canada, as it contains too much alcohol. The fluid extract is frequently prescribed.

EXTRACTUM HYOSCYAMI LIQUIDUM.

Henbane - leaves (in No. 40 powder) ...	20 oz. or 1,000 grammes
Alcohol (60-per-cent.)	a sufficiency

Prepare like the last.

NOTE.—More reliable than the succus as obtained in Canada, and contains less alcohol than the tincture.

EXTRACTUM TRITICI LIQUIDUM.

Couch - grass (cut small) ...	20 oz. or 1,000 grammes
Boiling water...	a sufficiency
Alcohol (90-per-cent.)	5 oz. or 250 c.c.

Digest the couch-grass with 100 oz. (or 5 litres) of boiling water for six hours; strain; repeat the operation twice; mix the infusions and evaporate to 15 oz. (or 800 c.c.); add the alcohol; let stand twenty-four hours, and filter.

NOTE.—Very often used. All the principles are in solution, Dose: 1 to 2 dr.

EXTRACTUM GRINDELIE LIQUIDUM.

Grindelia (in No. 40 powder) ...	20 oz. or 1,000 grammes
Sodium carbonate ...	2 oz. or 100 grammes
Water ...	10 oz. or 500 grammes
Alcohol (80-per-cent.)	a sufficiency

Moisten the grindelia with 8 oz. (or 400 c.c.) of alcohol; macerate twenty-four hours; pack in a percolator, and add menstruum to saturate; when the liquid begins to drop, close the percolator, set aside for twenty-four hours; then allow percolation to proceed, adding menstruum till the grindelia is exhausted. Recover the alcohol by distillation, and dissolve the residue in the water containing the sodium carbonate, and after effervescence ceases add sufficient alcohol to make 20 oz. (or 1,000 c.c.) of liquid extract.

Dose: 10 to 20 minims.

This preparation mixes clear with watery fluids as the resins are saponified by means of the sodium carbonate. It is preferable to the alcoholic fluid extract.

EXTRACT. SENEGÆ LIQUIDUM.

Senega (in No. 40 powder) ...	20 oz. or 1,000 grammes
Solution of soda ...	2 oz. or 100 c.c.
Alcohol (70-per-cent.)	a sufficiency

Moisten the powdered senega with the solution of soda and 6 oz. of alcohol; pack the moistened powder in a percolator, &c., the same as for buchu.

NOTE.—Is in considerable demand. Soda is preferable to ammonia, as in the U.S.P. Dose: 5 to 20 minims.

EXTRACTUM SANGUINARIÆ LIQUIDUM.

Blood-root (in No. 60 powder) ...	20 oz. or 1,000 grammes
Glycerin ...	2 oz. or 50 c.c.
Acetic acid ...	$\frac{1}{4}$ oz. or 26 c.c.
Alcohol (80-per-cent.)	a sufficiency

Mix the glycerin and acetic acid with 8 oz. (or 400 c.c.) of alcohol. Moisten the blood-root with the mixture; pack the moistened powder in a percolator; and proceed as with buchu.

Dose: 3 to 10 minims.

Ext. viburni opuli liq. and ext. viburni prunifolii liq. (each 20 oz. to pint with alcohol, 70-per-cent.) are regarded as "less important."

LIQUOR THYMOL COMPOSITUS.

Benzoic acid ...	$\frac{1}{2}$ oz. or 10 grammes
Boric acid ...	1 oz. or 20 grammes
Borax ...	$\frac{1}{2}$ oz. or 10 grammes
Thymol ...	44 gr. or 2 grammes
Eucalyptol ...	4 minims or 10 drops
Oil wintergreen ...	4 minims or 10 drops
Oil of peppermint ...	2 minims or 6 drops
Glycerin ...	100 c.c.
Alcohol (90-per-cent.)	300 c.c.
Water ...	a sufficiency

Dissolve the thymol and oils in the alcohol; dissolve the acids and borax in 12 oz. (or 600 c.c.) of water; add the glycerin; mix the two solutions; set aside for twenty-four hours; filter through kaolin, and add water to 20 oz. (or 1,000 c.c.).

NOTE: Similar proprietary preparations are in constant demand.

OLEUM GAULTHERIÆ.

The oil distilled from the leaves of *Gaultheria procumbens*.

Characters and Tests.—Colourless or slightly yellowish tint. Sp. gr. 1.180 to 1.187. It should rotate the plane of a ray of polarised light not less than 0.25 to the left in a tube 100 millimetres long. (Powers and Kleber.)

NOTE: A favourite aromatic oil in Canada.

[True oil of wintergreen is practically unobtainable; the commercial oil is distilled from sweet birch-bark.—ED. C. & D.]

SYRUPUS ACIDI HYDRIODICI.

Potassium iodide ...	236.25 gr. or 27 grammes
Tartaric acid ...	223 gr. or 25 grammes
Calcium hypophosphite ...	17½ gr. or 2 grammes
Water ...	525 minims or 60 c.c.
Alcohol (45-per-cent.)	440 minims [or ?]
Syrup to make ...	20 oz. or 1,000 c.c.

Dissolve the potassium iodide and calcium hypophosphite in and the tartaric acid in 440 minims (or 50 c.c.) of the alcohol;

mix the solution; shake well and set aside in ice-water for half an hour; then filter through a small filter, washing the filter with the alcohol till the filtrate amounts to 2 oz. (or 100 c.c.). Mix this solution with sufficient syrup to produce 20 oz. (or 1,000 c.c.).

Note.—Official in U.S.P. 1 per cent., but 2 per cent. is frequently demanded; this formula, therefore, meets all requirements

SYRUPUS FERRI PHOSPHATIS COMPOSITUS.

Iron wire	37½ gr. or	4·3 grammes
Precipitated calcium carbonate	120 gr. or	13·7 grammes
Potassium bicarbonate	9 gr. or	1 gramme
Sodium phosphate	9 gr. or	1 gramme
Cochineal	30 gr. or	3·5 grammes
Sugar	14 gr. or	700 grammes
Water ... ..	...	a sufficiency

Dissolve the iron wire in 1 oz. (or 50 c.c.) of phosphoric acid and ½ oz. (or 25 c.c.) of water in a flask by heating gently. Dissolve the calcium and potassium carbonates and sodium phosphate in ½ oz. (or 20 c.c.) of water. Mix the solutions, filter, and set aside. Boil the cochineal and 6 oz. (or 300 c.c.) of water for fifteen minutes; cool, filter, and wash the filter with water to make 7 oz. (or 350 c.c.). In this dissolve the sugar with the aid of heat, and strain. When cold, add the solution of phosphates and sufficient water to measure 20 oz. (or 1,000 c.c.).

SYRUPUS HYPOPHOSPHITUM COMPOSITUS.

Calcium hypophosphite	80 gr. or	12 grammes
Potassium hypophosphite	40 gr. or	6 grammes
Manganese hypophosphite	40 gr. or	6 grammes
Iron hypophosphite... ..	40 gr. or	6 grammes
Potassium citrate	30 gr. or	4·5 grammes
Strychnine hydrochloride	2 gr. or	0·3 gramme
Quinine hydrochloride	8 gr. or	1·3 gramme
Sugar	14 oz. or	700 grammes
Water ... ..	...	a sufficiency

Dissolve the calcium, potassium, and manganese hypophosphites in 4 oz. of water. Dissolve the iron hypophosphite and potassium citrate in 4 oz. of water, and in this solution dissolve the quinine and strychnine hydrochlorides. Mix the solutions, filter on to the sugar, dissolve by agitation, and make up to 20 oz. (or 1,000 c.c.).

Note.—There is a demand for such a preparation.

SYRUPUS SENEGÆ.

Liquid extract of senega	4 oz. or	200 c.c.
Sugar	14 oz. or	700 grammes
Water ... ..	...	a sufficiency

Mix the liquid extract with 10 oz. (or 550 c.c.) of water; filter through kaolin, washing the filter with distilled water. Dissolve the sugar in the filtrate; strain, and add water to make 20 oz. (or 1,000 c.c.).

Dose: ½ to 1 fl. dr.

SYRUPUS IPECACUANHÆ.

Liquid extract of ipecacuanha	1 oz. or	50 c.c.
Acetic acid	96 minims or	10 c.c.
Glycerin	2 oz. or	100 c.c.
Sugar	14 oz. or	700 grammes
Water ... ..	...	a sufficiency

Mix the liquid extract, acetic acid, and 10 oz. (or 500 c.c.) of water; filter through kaolin into the glycerin; add the sugar, and dissolve without heat; strain, and add water to make 20 oz. (or 1,000 c.c.).

Note.—Strongly recommended. Dose: 1 to dr.

HYDRARGYRI IODIDUM FLAVUM.

Mercurous iodide obtained by interaction of mercurous [nitrate] and potassium iodide.

Note.—This is stable, and is frequently prescribed.

TINCTURA ARNICÆ FLORUM.

Arnica-flowers (No. 20 powder)	2 oz. or	100 grammes
Alcohol (45-per-cent.) ... ..	...	a sufficiency

Moisten the powder with 4 oz. (or 200 c.c.) of the alcohol, and prepare by the percolation-process, 1 pint (or 1,000 c.c.) of tincture.

Note.—This tincture is the preparation exclusively used in Canada. Dose: ½ to 1 fl. dr.

TINCTURA JALAPÆ COMPOSITA.

Jalap (No. 40 powder) 1 oz., 262 gr., or 80 gramme	
Scammony " 175 gr. or 20 grammes	
Turbeth " 88 gr. or 10 grammes	
Alcohol (60-per-cent.) a sufficiency	

Moisten the powder with 2 oz. (or 100 c.c.) of the alcohol, and prepare 1 pint (or 1,000 c.c.) of tincture by percolation.

Note.—Ordinary tincture never used (in Canada); this preparation is a favourite among French physicians.

TINCTURA SANGUINARIÆ.

Sanguinaria (in No. 40 powder) 2 oz. or 100 grammes	
Acetic acid " 192 minims or 20 c.c.	
Glycerin " 1 oz. or 50 c.c.	
Alcohol (80-per-cent.) a sufficiency	

Mix the acetic acid, glycerin, and alcohol, moisten the sanguinaria with 2 oz. (or 100 c.c.) of the menstruum, and prepare 1 pint (or 1,000 c.c.) of tincture by percolation.

Note.—This menstruum yields the best results.

SYRUPUS HYPOPHOSPHITUM.

(Less important.)

Calcium hypophosphite	394 gr. or	45 grammes
Sodium hypophosphite	131 gr. or	15 grammes
Potassium hypophosphite	131 gr. or	15 grammes
Tincture of lemon	87 minims or	10 c.c.
Sugar	14 oz. or	700 grammes
Water to make	20 oz. or	1,000 c.c.

Dissolve the salts in 10 oz. (or 400 c.c.) of water, dissolve the sugar in the solution without heat, add the tincture, and enough water to make 20 oz. (or 1,000 c.c.).

Dose: 1 to 2 dr.

FERRI PHOSPHAS SOLUBILIS, U.S.P.

RESINA LARICIS.

Red-spruce gum: a resinous exudation from the stem and branches of *Larix americana*.

TINCTURA RESINÆ LARICIS.

Red-spruce gum	2 oz. or	100 grammes
Alcohol (90-per-cent.) 20 oz. or 1,000 c.c.		

Make by tincture-of-myrrh maceration-process.

New Books.

Any book named in this list can be supplied post-free to any part of the world on receipt of the published price by the Publisher of THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.

Hillyer, H. W. *Laboratory Manual; Experiments to Illustrate the Elementary Principles of Chemistry*. Cr. 8vo. 4s. net. (Macmillan.)

Lewis, P. G. *Nursing: its Theory and Practice*. 13th thou. 7½ x 4¾. Pp. 443. 3s. 6d. (Scientific Press.)

Mackintosh, D. J. *Skiagraphic Atlas of Fractures and Dislocations*. Notes on Treatment. 4to. 12s. 6d. net. (Lewis.)

Quain's *Elements of Anatomy*. Edited by Schäfer and Thane. 3 vols. Vol. 2, part 1: Osteology—Arthrology. 224 illus. Pp. 218. 11s. Part 2: Myology—Angiology. 199 illus., many coloured. 10 x 6¾. Pp. 404. 16s. (Longmans.)

Stout, G. F. *Manual of Psychology*. Vol. 2. Pp. 416. 4s. 6d. Complete in one vol. 7¾ x 4¾. Pp. 660. 8s. 6d. (Univ. Tut. Series) (Clive.)

Ziehen, T. *Introduction to Physiological Psychology*. Translated by C. C. van Liew and Otto W. Beyer. 21 illus. 7¾ x 4¾. Pp. 320. 6s. (Sonnenschein.)

THERE are thirty-six chemical-factories in Russia, with a subscribed share capital of 3,814,370l.

CHEMICAL PRODUCTS AND MATERIALS to the value of 1,357,325l. were imported into Russia during 1898, as against 1,352,108l. in 1887. Great Britain's share of this was a mere fraction—viz., 295,208l., against 353,925l. in 1897.

Observations and Reflections.

By XRAYSER.

THE EDUCATIONAL NUMBER of THE CHEMIST AND DRUGGIST is eloquent evidence of the prominence which examinations, and preparing for examinations, have acquired in our trade life. I do not at this moment wish to deal with the vexed question whether we get our fair reward for the trouble and anxiety and expense we are involved in before we have done with these. That difficulty will settle itself. No one is obliged to go through them, and when it is quite clear that the game is not worth the candle the game will flag of itself.

BUT ARE NOT EXAMINATIONS getting to play too big a part in our social life? Are we not on the wrong track with them? What we want in all professions is not so much luckily correct answers to five out of seven questions as the intelligent apprehension of the meaning of those questions. A mistake in working an arithmetical problem is of far less importance than a failure to understand the problem propounded. Is this distinction always borne in mind by modern Boards?

THOSE WHO REMEMBER the late Mr. Daniel Hanbury as an examiner will appreciate these observations. Mr. Hanbury did not ask many questions. He conversed. He picked up a specimen drug from the table and talked about it. I suppose he judged from the occasional interpositions of his interlocutor whether he was a safe person or not to be trusted with the handling of drugs. I do not think he would have attached much importance to a glib response about the chemical composition of the article.

EXAMINATIONS, as we know them—that is to say, either competitive or pass educational tests at the portals of professions or vocations—are essentially characteristic of this nineteenth century, and particularly of this latter half of it. Carefully regulated apprenticeship was the system which prevailed for centuries, and it worked well. Degrees in the universities were granted after disputations in which the candidates propounded and defended theses on some logical, classical, or mathematical subject, following a sufficient course of training. Remnants of this practice prevailed at Cambridge up till nearly the middle of this century, and the title of wrangler keeps its memory alive to this day. Latterly examinations have been rushed on us. They have become the be all and the end-all of education, and by this time the warning voices raised by many of our most competent educationists twenty years ago, when the advocates of examinations were commencing their clamour, have been balanced by the tacit acceptance of the system by their younger rivals, to whom it offers so many lucrative appointments.

A SCORE OF AVENUES of life work are now guarded at their entrances by examiners, and we are constantly hearing of new demands for similar distinction and so-called protection. How far the process will extend by the time the twentieth century has got half-way through its course it would be rash to prophesy. If examination is a necessary preliminary for one set of men who offer their services to the public, why not for all others? I am as anxious that the man who shaves me should know his business as the man who draws my teeth. It is as important that the man who mends my boots should be certificated as it is that the man who prescribes for the cough which results from bad mending should be; and I do not see why the competence of the people who supply us with milk, and bread, and tea should not be guaranteed as well as that of the gentlemen who compound the remedy when the others have poisoned us.

IS THE EXAMINATION-SYSTEM likely to be permanent with us? I for one do not believe that in its present form it is. That it works great injury can hardly be disputed, and I am not so certain as many of its defenders are that it

is even a necessary evil. There are at the present moment hundreds of thousands of bright, healthy young fellows in this country whose lives, when they ought to be at their happiest, are more or less a burden to them because of the haunting spectre of the examination which awaits them before they can begin to earn their own living. Of these many will no doubt suffer no harm from the ordeal; some, perhaps, will acquire strength and confidence in themselves as a consequence of the training and the triumph. But it can hardly be doubted that the majority have their intellectual and moral fibre injured by the process. Most of them are capable of doing something. It may be something quite different from the task chosen for them, or, it may be, one of the subjects of the examination—chemistry or botany, perchance. Here is a candidate so keenly interested in chemistry, perhaps, that he would acquire some knowledge of that science even though he were punished, instead of being rewarded, for so doing. But he is not allowed to study it in his own way; he must be drilled to fit himself for the standard the examiners have set up; and he must further burden his mind and his memory with a superficial knowledge of a hundred other facts in five other subjects which have no interest for him. Left to himself he might have turned out an enthusiastic chemist; but his examiners fighting against his natural predilections have done their best to spoil him in that capacity.

IF WE MUST HAVE EXAMINATIONS, could we not have really preliminary ones, conducted by men capable of discovering our natural aptitudes? Curious though it may seem to those brought up in the atmosphere of the schools, Nature may be relied upon to provide the race with its necessary complement of chemists, surgeons, engineers, lawyers, what not. They have been brought forth in due proportion all through the ages. Examinations will not help them much, but it is quite possible they may hinder them sometimes. Suppose Sir Isaac Newton or John Dalton had been compelled to grind for an examination in subjects for which they had no inclination. The drudgery would not have suppressed their genius, but it is quite possible it might have dulled the edge of their fine intellects. The chemists and druggists of 1815 and 1841 of whom we read in Jacob Bell's "Progress of Pharmacy" seem to have been as capable men as those we produce now. Perhaps they had a natural aptitude for the vocation, and a little of that is better than many months of laborious unsympathetic grinding.

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Our Inland Revenue.

THE report of the Commissioners of her Majesty's Inland
Revenue for the year which ended on 31 March 31, 1899, has
just been published. This is five months after the Chan-
cellor of the Exchequer had the main facts contained in the

report communicated to him for his Budget speech. The delay in publication is perhaps unavoidable—indeed, we ought to say that the report comes to us a fortnight earlier than it did in 1898. Let us be thankful for small mercies, especially as the report contains information whose value might be jeopardised by hasty publication.

PROPRIETARY MEDICINES.

In regard to the Medicine-stamp Duty (which the Inland Revenue Commissioners still persist in speaking of as the duty on "patent medicines") we note a further increase in the amount derived from the sale of stamps—namely, 266,404*l.*, or an increase of 5,552*l.* on the year preceding. Of this amount 264,232*l.* was taken in England, and 2,142*l.* in Scotland, so that the increase in England was more than double the total sale of medicine-stamps in Scotland. As we have previously pointed out, by far the larger proportion of the popular proprietary medicines consumed in Scotland are made or stamped in England. To show how the trade in proprietary medicines has increased during the past forty years, we repeat a table of the stamp-duty paid on them, which we have previously published, bringing it up to date:—

Year ended March 31	£	Year ended March 31	£
1860	43,692	1880	135,366
1861	44,786	1881	139,763
1862	44,270	1882	145,266
1863	48,002	1883	154,774
1864	49,849	1884	159,238
1865	52,978	1885	170,337
1866	57,336	1886	178,041
1867	59,600	1887	178,664
1868	59,815	1888	190,470
1869	63,954	1889	202,375
1870	72,353	1890	217,264
1871	71,343	1891	225,701
1872	86,517	1892	240,062
1873	95,813	1893	220,325
1874	99,808	1894	213,210
1875	114,323	1895	234,881
1876	123,136	1896	238,946
1877	118,222	1897	254,726
1878	125,142	1898	260,852
1879	132,386	1899	266,404

If we take the 3*d.* stamp as a basis of calculation, it will be seen that the revenue derived from the sale of stamps represents one-tenth of the retail value of the proprietary medicines sold to the public—namely, 2,664,040*l.* a year—or, with the 1½*d.* stamp as a basis, it may be taken to represent one-eighth, or 2,131,232*l.*, and the actual amount lies between that and 2,500,000*l.* This allows for the universal cut-rates. For the making and distributing of these medicines there are in this country 33,992 separate establishments, 31,323 being in England and Wales, and 2,669 in Scotland. These latter figures represent the licences issued to makers and vendors during the year; in 1898 30,556 were issued in England and Wales, and 2,574 in Scotland. It is generally assumed that less than half of these licences are held by registered chemists and druggists, but the fact is too frequently overlooked that a licence is required for each shop, and after allowing for makers' and wholesalers' licences, it is fair to say that at least three-quarters of this proprietary-medicine business is in the hands of chemists and druggists. The total revenue derived from the licences last year was 8,500*l.*

STILLS.

The next matter directly connected with the drug-trade which is dealt with in the report is the number of licences taken out by chemists who keep or use stills. We note that the number is decreasing. In England and Wales 695 were taken out last year, or five fewer than the year preceding; in Scotland 117, or six fewer; in Ireland twenty-four, or two fewer—the total thus being 836. As these licences must be

taken out by wholesale druggists and manufacturing chemists who use stills in the ordinary course of manufacture, it follows that the retail pharmacists use stills to an exceedingly limited extent—therefore, that such preparations as spirit of nitrous ether, aromatic spirit of ammonia, and distilled waters are either purchased from large manufacturers, or prepared by modifications of the official processes. The former explanation applies almost universally to the spirits mentioned, and aromatic waters are rarely prepared as the Pharmacopœia directs. This is not a qualifying observation, but the fact is there, and we do not suppose that any in the trade use stills without taking out the necessary licence.

METHYLATED SPIRIT.

The statistics given in the report regarding the manufacture of methylated spirit are exceedingly interesting. We find that the volume of spirit methylated during the year amounted to 4,781,369 proof gals., or almost 2½ per cent. of the total amount of spirit manufactured or distributed during the year. There are still twenty-seven persons or firms engaged in the methylation of spirit in the United Kingdom, the numbers being exactly as last year—namely, twenty-four in England, two in Scotland, and one in Ireland. Since 1890 there has been a remarkable change in the kinds of spirit methylated, foreign spirit being almost excluded. This is owing to the change effected in the import-duties five years ago, which put home-distilled spirit on a more favourable footing than the foreign article. The following figures show not only the total production of methylated spirit during the past ten years, but the origin of the spirit:—

Year	U.K.	Foreign	Total
1890	2,165,684	1,022,621	3,188,306
1891	3,160,577	290,313	3,450,890
1892	3,062,240	455,533	3,517,773
1893	2,889,317	645,517	3,534,834
1894	3,106,881	436,705	3,543,586
1895	3,139,054	447,949	3,587,003
1896	3,838,082	919,990	3,930,072
1897	4,118,874	24,436	4,143,310
1898	4,460,862	1,706	4,462,568
1899	4,781,369	3,780	4,789,149

The amount of spirit methylated in the three countries during 1898-99 was:—In England, 4,152,173 gals.; in Scotland, 587,823 gals.; and in Ireland, 45,153 gals. These figures refer to proof gallons. The amount of foreign spirit used in England was 3,045 proof gals., and in Scotland 735; Ireland has not used any foreign spirit for methylation during the past three years. The highest amount of foreign spirit methylated in England was in 1890, when the total was 723,931 gals., and in Scotland in the same year 291,001 gals. was so treated; but there was a rapid diminution in both countries until 1895, when Scotland used 107,493 gals. (about 30 per cent. more than in the year preceding). Since then the figures have steadily gone down. There has been an increase in the number of retailers of methylated spirit during the year, the total now being 14,833, of whom 12,542 are in England, 1,588 in Scotland, and 703 in Ireland. The revenue derived from the licences was 7,270*l.*, and, at 10*s.* each, the figures seemed to show that 293 of the retailers had not paid up before the end of the financial year.

PRODUCTION AND CONSUMPTION OF ALCOHOLIC BEVERAGES

There are in England eleven distilleries, in Scotland 157 and in Ireland twenty-nine. Last year there were sixteen

illicit stills detected in the United Kingdom, apart from 1,779 seizures made by the Royal Irish Constabulary. Of course, the production of spirit in these illicit affairs does not come into the Commissioners' statistics. The total amount of duty received on account of home-made spirits was 17,967,142*l.*, this representing 33,713,128 proof gals., but 63,437,884 proof gals. was distilled, and on March 31 no less than 151,732,539 proof gals. of home-made spirits remained in the bonded warehouses. That represents more than three years' supply, and should ensure that whisky is well matured before it is sold. This stock is the largest ever known. Last year 5,541,441 proof gals. of home-made spirits was exported, and 284,736 proof gals. was used for fortifying wines, for ships' stores, and the like. Scotland distils a little more than half of the total amount of spirits made in the United Kingdom. Last year the amount was 35,769,114 gals.; Ireland came next with 14,754,999, and England last with 12,913,771. The amount retained in England for consumption as a beverage was 23,145,797 gals., in Scotland 7,073,514, and in Ireland 4,109,773, thus giving a total of 34,334,084 proof gals. Besides this 8,127,940 proof gals. of colonial and foreign spirits was entered for consumption, thus making the consumption of spirits equal to 1,054 proof gal. per head of population in the United Kingdom. Of the foreign spirits consumed the proportions are about nine of rum, five of brandy, and three of other kinds of spirits.

BEER-DUTY

makes an enormous account, the total revenue from it during the year having been 12,085,882*l.*, or more than a quarter of a million in excess of the preceding year. The rate is 6*s.* 9*d.* per barrel. It thus represents 36,498,204 barrels, of which all but 569,592 barrels was retained for home consumption. There are 36 gals. to the barrel. We leave the curious to calculate how many pots of beer are represented in the total, and for their benefit we would mention that the estimated population of the United Kingdom is 40,282,000, from which it appears that each man, woman, and child in this country consumes about 32 gals. of beer per year. There are 14,492 brewers in the kingdom, 7,530 of whom brew for sale. The Commissioners give a table, showing the quantities and kinds of materials which these brewers for sale manipulated during the year, and this table is altogether in favour of the big brewers. There are ten brewers in the country who brew a million barrels or more per year, and last year these used a little more than 8½ million bushels of malt, 1,569 cwt. of other grains, such as rice and maize, and 90,132 cwt. of sugar, glucose, and saccharum. But there were used by all brewers 927,036 cwt. of rice and maize, or their equivalents, and 2,773,512 cwt. of sugar, &c. By far the greater proportion of the substitutes for malt was employed by the smaller brewers. The moral is obvious—stick to Bass, Allsopp, Whitbread, Guinness, and the like. The Commissioners are unable to state the annual consumption of beer in England, Scotland, and Ireland respectively, because there are no statistics of removals of beer from one country to the other, just as there are no statistics available for the consumption of proprietary medicines in the first two countries.

LIMITED COMPANIES.

There was a marked diminution in the number of companies registered during the year, except in Edinburgh, where 381 (thirty-eight more than in 1898) were recorded, the figures for London being 4,565 (4,831 in 1893), and for Dublin 131 (eight more the year before). The amount of duty paid was also much less—viz, 75,497*l.*, against 83,114*l.* in 1898. This was partly compensated, so far as the Revenue

was concerned, by better receipts for stamps connected with the winding-up of companies, 3,710*l.* having been paid on that account—which is decidedly not a gain to the money-investing community. The fees paid in respect to patents and trade-marks were less by 1,853*l.*—viz, 212,863*l.*—but the Solio decision will help to make the figures for 1900 better, as the Comptroller-General appears to be accepting anything for a trade-mark now.

INCOME-TAX.

Income-tax yielded 18,042,311*l.*, or 870,934*l.* more than in the year previous. What this represents in incomes is not given, but the following are the figures for 1897-98:—

Schedule A (houses, lands, &c.)	...	£216,457,409
Schedule B (farms, &c.)	...	18,290,828
Schedule C (annuities, dividends, &c.)	...	38,609,269
Schedule D (professions, trades, &c.)	...	396,179,970
Schedule E (salaries from public offices, &c.)	...	59,790,819
Total	...	£729,328,295

This is what the black-coated workers of the kingdom and those who toil not nor spin admit that they received during 1897-98. London takes 285 millions, the rest of England 343 millions, Scotland 68 millions, and poor Ireland only 32 millions. As these figures do not include the wage-earners of the country, the yearly income of the United Kingdom is veritably a thing which dreams of avarice cannot touch.

Dispensing-testing.

THERE is little originality in the methods by which some authorities under the Sale of Food and Drugs Act test the accuracy of dispensing as done by chemists and druggists. In 1876 Mr. A. H. Allen, of Sheffield, and Mr. William Thomson, of Manchester, in their capacity as public analysts, reported upon the matter to the bodies by whom they were appointed. Mr. Allen selected prescriptions containing quinine sulphate and potassium iodide, and Mr. Thomson a prescription containing potassium iodide. Neither of these analysts found the amounts of substances present to be exactly what was prescribed. Again, in 1886 Dr. Seaton, the medical officer for health for Chelsea, and Mr. Otto Hehner did work of much the same character, potassium iodide again figuring in the tests. Now we have the medical officer of health for Fulham and Mr. Cecil H. Cribb going along the same lines, as a result of which four chemists were summoned on September 1 (not Saturday, September 2, as the daily newspapers have reported) for inaccurately dispensing a prescription ordering 240 gr. of potassium iodide in a 6-oz. mixture, providing for a 20-gr. dose. Thirty chemists had dispensed the prescription, and the authorities were satisfied that twenty-six had done it correctly. Four were summoned, and of these only one case was gone into fully. Here it was alleged that the mixture contained 258 gr. of potassium iodide; but Dr. John Atfield, for the defence, maintained that there was only 2 gr. in excess, and he pointed out that the public analyst may not have allowed for the impurity which is invariably present and is permitted by the B.P., or it may have been reckoned that the mixture contained 40 gr. of iodide in 430 fl. gr. instead of 437½ fl. gr. The case was dismissed, the Magistrate remarking that he had the greatest doubt whether the Sale of Food and Drugs Act was meant to apply to cases of this nature. One summons was withdrawn and two other cases were adjourned. These prosecutions appear to us somewhat frivolous, and show some lack of appreciation of the conditions under which dispensing is done. A discrepancy amounting to 3 per cent. may be accounted for by reckoning the fl. oz. as containing 480 gr.; while it might also be due to the

use of a bottle having a capacity a drachm or two less than 6 oz. We do not say that the latter was the method of dispensing adopted in the cases under notice, but now is a suitable opportunity for repeating the instruction so often given that the exact measurement of liquid medicines should be determined before they are finally dispensed. Errors in weighing are of the rarest occurrence at the dispensing-counter, and the Fulham inquiry we take as good proof of the fact. Several of the daily papers have commented upon the case in a very inept manner, but they were dealing with incorrect reports, and are to be excused. While agreeing with the spirit of Mr. Rose's remarks, we can scarcely admit the suggestion that the seventh section of the Act was not a proper one to take proceedings upon. That section stipulates that "no person shall sell any compound article of food or compounded drug which is not composed of the ingredients in accordance with the demand of the purchaser, under a penalty not exceeding 20*l*." Clearly a medicine compounded according to a prescription is a compounded drug, and the section exactly applies. The cases decided, especially that of Mr. Andrews, cast doubt upon the public analyst's results, but those which Somerset House is to deal with may settle that point. Then (if the Government chemists do not agree with Mr. Cribb) will arise a curious problem. If these four mixtures were correct, were the twenty-six which were reported to be correct judged on an incorrect basis?

Commissions to Medical Men.

SIR EDWARD FRY, formerly a Judge of the High Court, and now a member of the Judicial Committee of the Privy Council, contributes to the *Times* of September 2 a scathing indictment of medical authorities for their neglect of the charges alleging that members of the medical profession receive commissions on prescriptions from chemists and others. It will be remembered that the question arose when the London Chamber of Commerce made an inquiry regarding secret commissions, when a pharmaceutical chemist and an optician, jeweller, and silversmith gave evidence as to the payment of commissions to medical men; thereupon the Council of the British Medical Association took the matter up, and demanded further particulars from the Chamber of Commerce—"a demand," says Sir Edward Fry, "not likely to be complied with beyond the evidence of the report, as the committee had confessed that most of the communications 'were received under a promise that they should be treated as strictly private and confidential.'" Sir Edward then proceeds to criticise the statement made by Dr. Robert Saundby, President of the Council, at the annual meeting of the Association on August 1, pointing out that

to give any value to the negative conclusion on which the President of the Council relied, the inquiry must have been, if not absolutely exhaustive, at least very wide, general, and thorough. But the President of the Council is not content with his conclusion of fact; he enters upon the morals of the question, and suggests that the acceptance of a commission on work done is either innocent or less immoral than the acceptance of a like favour for work to be done. He seems to suggest that, whilst it would be (or, perhaps, I should say might be) improper to receive a commission on prescriptions to be written, it is permissible to receive it on prescriptions after they are made up; and yet one sees in an instant that the expectation of a payment at Christmas will act as forcibly on the practitioner as a previous payment or a previous promise. If Dr. Saundby does not mean to defend such payments "after the event," why does he dwell upon the distinction? If he does mean to defend them, has he not grievously injured the honour of a noble profession?

Reference is then made to the case of Macdonald, Sons & Co. (Limited), heard by Mr. Justice Vaughan Williams on

August 2 and 4, 1893, in which nine medical men moved to have their names removed from the list of shareholders of that company, which was engaged in business as manufacturers and vendors of medicated wines and invalids' foods, and had set aside forty founders' shares of 25*l*. each, fully paid, to be given to medical men as an inducement to prescribe and recommend the wines and foods made by the company. Nine of the persons who received these shares combined together, when the company went into liquidation, to oppose the Official Receiver's action in putting them on the list of contributories. Mr. Justice Vaughan Williams granted their application, remarking (we quote from the *C. & D.* report, August 12, 1893):—

It is a very sad thing that members of a learned profession should have condescended to accept these fully-paid-up shares on these terms. It may be that an individual doctor thought well of the wares of this company, and in prescribing or recommending them he acted according to his convictions. But it is not the less a fact that these doctors took these shares as bribes.

At that time the *Times* urged that some action in regard to the conduct of these nine practitioners should be taken by the General Medical Council and the licensing bodies to which the individuals belonged, but "no step," Sir Edward Fry points out, "has been taken to discover the delinquents or to relieve the whole profession from the stain cast upon them." The contrast between the recent "righteous indignation" of the British Medical Association and its former silence is obvious, but Sir Edward Fry pushes the point home with vigour, and backs up what he says with recent allegations, from which we quote one more passage:—

When the Lord Chief Justice brought into the House of Lords his Bill on corrupt payments, a Glasgow paper (the *Glasgow Evening Citizen*) made some local inquiries in respect of various trades and professions in that city; and they reported the statement of "a prominent member of the drug trade." "In Glasgow," he said, "it is a very common thing for doctors to insist on a commission on all prescriptions sent to the druggist," and the same paper cited a letter from a "dispensing chemist" giving the terms of a contract to this effect which he entered into with a young doctor, under which the charges were to be in excess of ordinary dispensing-charges and the doctor was to receive 30 to 40 per cent. on the net profits. In addition to these public statements, I may mention that I have received communications from more than one person confirmatory of the existence of the practice.

One more observation occurs. The charge has publicly been made. Has it been denied by anyone acquainted with the profession of medicine or the trade of a chemist? So far as I know there has been no such denial.

In replies since published by Dr. Roberts Thomson (Pres. B.M.A. Council), Dr. Saundby, Mr. John Marshall (pharmaceutical chemist), and Professor Dobson (Bristol) the existence of this system of commissions is denied, and investigation courted.

The point of view has much to do with the significance of things. Sir Edward Fry looks at this matter solely as a kind of bribery—money paid for the perversion of trade. If he supposes that the thing is common, he is wrong, for it is impossible, as nine-tenths of the medical practitioners of England and Wales do their own dispensing. Elsewhere arrangements do exist between medical men and chemists whereby the former obtain a share in the profits accruing from the dispensing of their prescriptions. It is commoner in Scotland, Ireland, and the North of England than in the rest of the country. The custom has existed for about half a century, and arose when medical men there began to give up dispensing their own prescriptions, and sought for a means of retaining some of the profits obtained by dispensing. It is not a growing custom in the districts where it

exists, but rather the opposite. It cannot be said that consulting practitioners receive commissions, although occasionally suspicion has attached to distinguished names, and there have been dark hints of this and that having been given to Sir —, Bart., or Sir —, Kt.; but when such cases are investigated they are found to be the veriest gossip.

Sir Edward Fry contrasts the uncorruptible Bench with peccant physicians. He remarks: "If the Chamber of Commerce had charged the Judges of England with the receipt of bribes I should have said that I had never received one; that no one had offered me one; that I had an intimate knowledge of many judges, and that, to the best of my belief, all English judges were as innocent of the charge as myself." He may rest content so far as the equivalent of judges in the medical profession are concerned, but he entirely overlooks the smaller fry of both professions, and the starting-point of such commissions as exist in connection with the medical profession—viz., the right claimed by medical men to dispense their own prescriptions. That is a legal right unquestionably, and no medical practitioner or anybody else dreams that the profits arising from dispensing are illegitimately obtained. If Sir Edward Fry can give us arguments to prove that profits for dispensing paid by the dispenser to the prescriber or directly earned by the dispenser are illegitimate, he will do pharmacy a service of the greatest import.

Essential Oils up to Date.

SINCE man began to record his history, if not before, scents and spices have marked a certain stage of cultivation. The earliest writers have left sufficient evidence that drugs containing an odoriferous principle were esteemed in their day. Then the natural products, such as scented woods, herbs, and gummy exudations, were in use, but the first Sanscrit writers mention otto of rose and calamus oil, thus introducing us to a higher stage, and 4,000 years before Christ the Egyptians seem to have known the turpentine of the cedar-tree, and possibly even other aromatic principles, which required a process of some kind for their preparation. The literature relating to the history of essential oils is considerable—from the earliest times to the middle ages, and from the middle ages to the eighteenth century—and the best part of this literature can be conveniently divided into material which should interest the curious, but it has only been within recent years that the scientific study of essential oils has developed so that it has become a distinct branch of study and research, requiring most intimate knowledge of organic chemistry.

Like all branches of chemistry which are in process of differentiation, the chemistry of essential oils is a subject with which it is difficult to keep pace. Not so many years ago the late Dr. John Stenhouse, Dr. J. H. Gladstone, and Dr. W. A. Tilden were the authorities on the subject in this country, but a short time since we heard the two living authorities confess that the subject had outpaced them, so quickly has it developed along new lines. Dictionaries of chemistry have certainly not kept pace with it, and few chemists in this or any country are competent to write a book on the subject which will be historiographic and scientific. We therefore welcome the appearance of one published by Mr. Julius Springer, of Berlin, but promoted by the firm Schimmel & Co., of Leipzig, and written by Dr. E. Gildemeister, one of the firm's chemists, and by Dr. F. Hoffmann, formerly editor of the *Pharmaceutische Rundschau* of New York. The sumptuous volume of over 900 pages, which they have produced is written in German, and is entitled "Die aetherischen Oele." The book is a

landmark in the subject, and deserves the attention of all who are interested in essential oils.

It consists of several parts. First the history of the subject is graphically dealt with by the pen of Dr. Hoffmann, who gives interesting details about the spice-trade in ancient times and the middle ages. He describes the various routes by land and sea by which the valued products of the Orient were brought to the Occident. These spices were the most important products of early commerce, especially cloves, cardamoms, cinnamon, camphor, and sandalwood, which still to-day are almost of the same commercial significance as they were thousands of years ago. Nearly a hundred pages of the book deal with the history of essential oils, and a further forty-two pages deal particularly with the history of distillation and distilling-apparatus. In this respect the mystic middle ages are a plentiful source of interesting publications, and the chapter is full of curious data, while excellent illustrations strikingly demonstrate the enormous progress made from the time when the shapes of distilling-flasks were deduced from the ostrich, goose, pelican, and bear. Numerous and complicated forms of stills were used during the middle ages proper, and these fantastic shapes persisted until the beginning of this century, when steam-apparatus began to be used. Since then the improvements have been as great between the earliest steam types and the most recent apparatus.

The historical part of the book is followed by a series of general chapters, in the course of which hints are given in respect to steam distillation, and 100 pages describe the various definite chemical substances which are to be found in essential oils. This part of the book is of great value, as it describes well all the compounds, their chemical and physical characteristics, and their identification-tests. The next chapter deals generally with the testing of essential oils and describes the various physical tests, such as specific gravity, optical rotation, boiling-point, solubility, &c., and gives details how to carry out acetyllising, aldehyde-determination and also how to recognise some of the substances largely used for sophistication. A table of the various plants which yield essential oils finishes the general and first part of the book, and leaves over six hundred pages for the detailed monographs of known essential oils.

Under the German name of each oil are given the English, French, and Latin names; then follow source, yield, properties, composition, adulteration, and testing. Numerous illustrations are given, such as maps to show the districts covered by the individual plants, and pictures to describe the particular way of collecting plants or distilling. Altogether the book forms a complete compendium of what is known about essential oils. Many of the data given are reproduced from Schimmel's Reports, and repeated reference is made to the firm, but it must, in fairness to the authors, be said that the volume is nevertheless free from anything which might detract from its value as a scientific book. English and other foreign work is copiously referred to. One point which is specially noteworthy is that the authors have left out antiquated and valueless tests, and they appear to have kept in view the needs of those who buy, sell, or use essential oils. The book is not highly technical, nor does it attempt to give details regarding manufacture, so that the novice who consults it need not expect to be able to start from it primed with that knowledge which comes from years of practical experience. Nor is this to be wondered at, if we consider that many of the subjects treated in the volume have their own literature, voluminous enough in several instances to make separate books. We cordially recommend the book to those interested in the subject, and hope to return to it in more critical vein at an early date.

OVERWORKING LADY-CLERKS.

In a letter to the *Star* of September 5, "M.D." refers to a case of a few days before in which a West-end dressmaker was fined for working one of her employes more than a certain number of hours a day. Why, asks "M.D.," should not this law also apply to lady-clerks? He knew a case, he said, where a firm of chemists work their lady-clerks from 9 o'clock in the morning until 9, and sometimes 10, o'clock at night, and for this they are paid at the rate of 15s. weekly.

THE MALARIAL MOSQUITO.

Major Ross has now written in explanation of his recent telegram about the malarial mosquito. At Wilberforce (Sierra Leone) he found the 3rd West India Regiment suffering severely from fever. All kinds of parasites were found in the patients, but the only form of mosquito plentiful there is a large species of *Anopheles*, which he dissected and found to contain malaria-germs growing in its tissues. Hence there is no longer any doubt that that kind of *Anopheles* carries malaria. The parasite is the quartan one, which has never been cultivated before.

THE "COMFORTER" AND THE TEETH.

At first sight there seems to be no connection between the early decay of the teeth in Britain and the universal "baby-comforter." Nevertheless Dr. Cantlie, in a paper communicated to the recent meeting of the British Medical Association, is distinctly of opinion that the "comforter" is doing a lot of damage. This is what he says on the matter:—

The muscles employed in sucking the "comforter" are exercised to such a degree that they become hypertrophied, the cheeks are drawn inwards and impinge against the sides of the upper jaw. With constant efforts in this direction the hypertrophied muscles press upon and compress the upper jaw, ultimately causing the sides to be drawn inwards, and the front of the upper jaw to be pointed and to protrude like a pig's. But compression of the lateral aspect of the upper jaw causes the arch of the palate to rise, hence the high arch we so frequently see, and the ill-fitting jaws, the upper jaw falling within the lower at the sides and overlapping it at the front. Nor does the evil rest here. The hard palate can only be arched at the expense of the nasal space immediately above it, and the consequence is an obstruction to the entrance of air by the nose. A misshapen jaw is always associated with nasal obstruction, and breathing takes place by the mouth in place of by the nose.

We wonder if Dr. Cantlie, who, by the way, is surgeon to the Seamen's Hospital Society, has considered what effect the thumb has in similar circumstances?

SOLIDIFIED HYDROGEN.

At last week's meeting of the Paris Academy of Sciences, M. Moissan gave some particulars of Professor Dewar's feat in solidifying hydrogen. The result, as we conjectured, has been arrived at by utilising the extreme cold produced from evaporating liquid hydrogen. A temperature of 265° below zero Celsius was thus reached for the first time, the results therefore being of double interest to scientists. Contrary to the opinion long held that solidified hydrogen would present, when found, the appearance of a metal, Professor Dewar finds that it is both transparent and colourless. M. Moissan explained to the Academy the principle of the apparatus employed by Professor Dewar. An insulated beaker is partly filled with liquid hydrogen, and is closed with an adjustment which contains orifices through which the vessel can be emptied with great rapidity by means of a pneumatic pump. The preparation for the experiment is completed by immersing in the liquid in the larger receptacle a similar vessel also containing liquid hydrogen, and cold to such a degree is produced by the evaporation that a white deposit appears in the liquid in the small immersed vessel—this deposit is solidified hydrogen. At first Professor Dewar was unconvinced by the result of his experiment. It appeared to him that the deposit obtained might be solidified air arising from a

residuum of air adhering to the apparatus, or from air and hydrogen combined in the course of preparing the gas. However, by varying the experiment, Professor Dewar has been able to establish with certainty the production of solidified hydrogen.

LONDON UNIVERSITY.

The *British Medical Journal* had the luck last week to get some advance information regarding the new Statute for the London University to be put before the Statutory Commission after the recess, and, although issued in strict confidence, which our contemporary does not wish to violate, the draft is presented with sufficient clearness. It sets forth that the senate will consist of a chancellor, chairman of convocation, and fifty-four other persons; sixteen of the senators are to be elected by the convocation and sixteen by the faculties, as required by the Act, two being elected by the graduates in medicine and surgery, and six by the graduates in science, while the faculty of medicine and surgery will elect three, and the faculty of science four. The faculties will be eight in number—namely, theology, art, law, music, medicine and surgery, science, engineering, and economics and political science, including commerce and industry. The faculties will consist of teachers, professors, assistant professors, and readers and lecturers. There are also to be thirty-five boards of studies, amongst which are named one of pharmacy, another of chemistry, and a third of chemical industry. There will be, also, a special board devoted to preliminary medical studies—namely, physics, chemistry, and biology—and, as early medical studies and advanced medical studies are also to be covered by special boards, the board of pharmacy seems to be one outside the medical requirements. Are we to have a degree in pharmacy conferred by the University of London? It looks like it. Dentistry, we notice, is also included amongst the boards of study. In fact, the whole scheme is exceedingly comprehensive of all branches of knowledge, and may be mainly intended to provide for future requirements rather than immediate interests.

CONCERNING MYCETOZOA.

Commissions to medical men is not the only subject which occupies the leisure of Sir Edward Fry. In *Knowledge* there is running a series of interesting and learned articles by Sir Edward and Miss Agnes Fry on the "Mycetozoa, and some of the Questions which they Suggest." In the issue for September the authors state that the life-history of all the *Acrasieae* presents many very curious points, which seem to bring before us the fact that separate protoplasts, without ever uniting into a plasmodium or ever becoming part of a single organism, may nevertheless acquire as it were the social instinct and live for the good not of themselves but of the whole organism, and for that purpose may submit to a division of labour; for whilst some of the protoplasts assume the function of only supporting their fellows, the others avail themselves of the support, raise themselves from the level of their original surface, and devote themselves to the function of reproduction. And, moreover, certain aberrant and sessile forms of the *Dictyostelium* seem to show that this elevation of a portion of the protoplasm is not necessary to reproduction, though it may well be that the greater exposure to the ripening influences of the atmosphere and the sun may render it beneficial to the organism, and so more than compensate for the withdrawing from the function of reproduction of a certain part of the protoplasm, and applying it to the purposes of support alone.

THERE has been a brisk business lately in sponges at the Nassau Exchange, and the demand both from Europe and the United States has caused lively competition to secure the various lots offered at auction. Prices remain very high.

Trade Notes.

"YEWSABIT" METAL-POLISH.—Messrs. W. B. Fordham & Sons (Limited), York Road, N., have been appointed general agents (also sole agents for London and suburbs and Birmingham and district) for the sale of "Yewsabit" metal-polish, which differs from most polishes in being as good for glass as it is for polished metals. It is attractively put up in boxes.

INCOME-TAX OVERCHARGES.—As the blue notices of income-tax charge are now being delivered, the Income-tax Adjustment Agency, 12 and 13 Poultry, E.C., ask us to state that those who have made returns which have been ignored, or who have been assessed for the current year at a sum greater than the yearly average of their profits for the three years ending April 5, 1899, must at once give notice of appeal in accordance with the instructions on the notice. The best course is to appeal to the "Special Commissioners."

MESSRS. DAVIES, GIBBINS & Co, manufacturing chemists, Derby, send us samples of cod-liver oil emulsion, which they manufacture, as well as podophyllum and scammony resins. The emulsion is a good preparation, well made, inseparable, white, and of good flavour. They can supply it put up ready for sale or in bulk quantities. The resins are also manufactured by the firm, as they use large quantities of them in their pill-factory. We have tested both and find them to be pure, the podophyllum-resin being quite free from earthy components, which are sometimes added to facilitate precipitation, and which result in partial products. This resin, however, is quite soluble in alcohol and in ammonia solution. The scammony-resin answers all the tests of purity prescribed by the B.P.

MESATEE BATH AND TOILET CRYSTALS—This is the name of a water-softening crystalline powder manufactured by the Crown Crystalline Company, Acton, W. We have analytically examined the powder, and do not find any injurious chemical in it. It softens the water quite readily, and has no bad effect upon the skin. The preparation is put up in tins and jars, to retail at 1s. to 7s. It is variously perfumed—for instance, with lemon, rose, eucalyptus, lavender, almond, and rosemary. It is good for softening water for all household purposes, and we observe that it is used by a large number of important establishments in London—such as the Bank of England and the Guildhall—for the purposes recommended. Half a teaspoonful of the crystals is sufficient for softening a ewful of water, and a tablespoonful, or less, is used for a bath.

ARTISTIC PUFF-BOXES.—The Stipendum Stopper Company, Lamb's Conduit Street, W.C., have brought out a new series of their grease-proof boxes in the form of puff-boxes. These are very artistic articles and are lined with white metal, and are finished externally in pleasing colours, such as red leather, old ivory, old gold, old silver, copper, and bronze. The boxes are practically unbreakable, and, as the decoration is all in relief, they form an attractive addition to the chemist's stock, and will be much

appreciated by customers. The boxes can be obtained direct from the company or through any of the druggists' sundries houses.

REDEMPTION OF CAPITAL FOR CHEMISTS—We have had a talk with Mr. Manners, of Messrs. Judd & Manners, transfer agents, 76 Cannon Street, E.C., regarding the new system for the security and redemption of capital invested in business, which his firm are placing prominently before the trade this week by an advertisement in our Coloured Supplement. The idea of the system is that anyone starting in business may, by the payment of one sum or by an

annual premium, secure at the end of any definite period a sum of money sufficient to redeem the lease, goodwill of the business, or other risks connected with the drug-trade. We put this example to Mr. Manners: "Suppose a young chemist starts in business with a seven-years' lease, does fairly well, and at the end of that time the landlord wants to double his rent; how would you do in that case?" Mr. Manners replied: "We could give him an insurance for, say, 400% or 500%, less or more according to the value of the business, and when the landlord puts on the screw the sum assured might be used in paying the landlord a premium or enabling the chemist to buy new premises in the neighbourhood, or, in any case, it will give him confidence which he would not have without ready cash." Other eventualities were discussed, and we think the proposal is one which will commend itself to many in the trade. If they write to Messrs. Judd & Manners they will get full particulars. The guarantee is really that of a wealthy corporation in the City of London.

WAGNER'S POWDER.—Messrs. F. Schutze & Co., 89 Southwark Street, S.E., have been appointed agents for this powder, which is the subject of British and Indian letters-patent as well as patents in other countries. The patent-specification shows that the constituents of the powder are quicklime and reduced iron. We have analysed it, and find this statement to be correct. The constituents are not in chemical combination, although they form an impalpable and apparently homogeneous powder. On treatment with water it is not difficult to separate the lime from the reduced iron, and the washings are of the alkaline strength of liquor calcis. B.P. The powder is put up in small boxes, containing about $\frac{1}{2}$ oz. of the remedy. There is enclosed with it a measure capable of holding 1 c.c. of the powder, and this is the quantity that is to be taken mixed with 4 to 8 oz. of lukewarm water every quarter of an hour in treating cases of diarrhoea, dysentery, and cholera. Mr. Alexander von Wagner, the inventor of this combination, has great faith in it, and we understand that Messrs. Schutze & Co., who are the agents for the whole of her Majesty's dominions, are to push it energetically for him.

Business Changes.

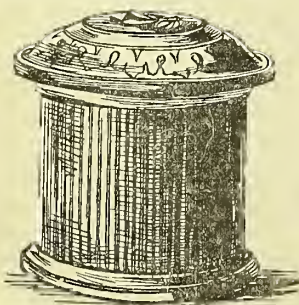
Notices of changes in the retail trade, and opening of new businesses, are inserted in this section free of charge, if properly authenticated.

MR. JOHN J. MUNRO, chemist, Stirling Street, Denny, N.B., has disposed of his business there to Mr. James Mitchell, chemist and druggist.

MR. R. M. CROSDALE, chemist and druggist, has had a pharmacy fitted up for him at 340 Manchester Street, Oldham, by Messrs. Ayrton & Saunders, of Liverpool, and has just commenced business.

THE RESIDENCE AND DISTILLERY occupied by the late Mr. W. Holland, medicinal-herb grower and essential-oil distiller, Market Deeping, have been taken upon a lease by Messrs. Richardson & Co., manufacturing chemists and distillers, Leicester. At present the distillery is being worked by Mr. Holland's executors, but the above company will shortly commence distilling, and will probably extend the works.

TRADE ROGUEERY IN ARMY DRUG-CONTRACTS.—In the Government Laboratory a series of examinations of samples sent in from the Army medical stores throughout the kingdom have been conducted by Dr. Thorpe. He states that many of the samples were "markedly inferior." In one case ether supplied for anæsthetic-purposes turned out to be quite inefficient, and, on examination, was found to have been made from methylated spirit, though the label bore a guarantee that rectified spirit was used. If there be no satisfactory organisation for the testing of Army drugs before acceptance, there can be little doubt that drug-frauds are being perpetrated, and that when we come to war we may find the soldier in the same unhappy condition as regards medication as he was in the Crimea.—*The Medical Press.*



German Chemical-trade.

IN the course of his annual report on German trade for 1898, Mr. Consul-General Schwabach states that profits in the drug and chemical trade have been greatly reduced by the enormous competition, and that Germany is losing her hold on the export of medicinal tinctures, to the advantage of Great Britain. The Consul has a good deal to say about borax, oxalic acid, ammonia sulphate, antipyrin, chloride of lime, glycerin, sugar of lead, saccharin, &c., but most of it is ancient matter, and is merely a review of the markets during 1898. The information might have been of more value had it been published earlier. The oxalic-acid trade was brisk, but prices could not be kept up, as many new firms started outside the syndicate. The exports were 52,726 cwt. in 1898, against 47,591 cwt. in 1897, of which the U.K. took 8,333 cwt. Glycerin-makers did not have such a prosperous year as 1897, as much foreign glycerin found its way into the German market, and was sold at a lower rate. In 1898 185,614 cwt. of crude glycerin was imported, against 194,689 in 1897, and of this 87,149 cwt. came from Great Britain. Imports of refined glycerin amounted to 28,977 cwt., against 35,612 cwt. in 1897, of which Great Britain sent 8,232 cwt. In spite of this foreign competition, however, the German production showed a decided increase, principally in dynamite glycerin, of which Cape Colony and the Transvaal took by far the largest quantity. The exports of German glycerin in 1898 amounted to 127,300 cwt., against 67,953 cwt. in 1897. Of this amount 8,810 cwt. went to Great Britain; South Africa took much more than half of the entire German exports. Business in chlorate of potash and soda was decidedly unsatisfactory at the beginning of 1898, but improved during the last half of the year, as manufacturers came to an understanding; and electrolytic chlorate of potash was advanced from 53m. to 62m. per 100 kilos., about which figure it now stands. As regards sulphuric acid, the Acting Consul-General says that a great change seems imminent in the manufacture, as the Baden Aniline and soda Factory have patented what they think to be a most important improvement in the production, by which there will be an immense saving of fuel, and the expensive platinum apparatus will no longer be required. More important still is the fact that no saltpetre will be required in the new process. As regards phosphorus, there is a movement on foot to form a syndicate, but evidently it is not yet an accomplished fact. The imports decreased, being 5,928 cwt., against 5,831 cwt. in 1897, of which Great Britain sent 5,121 cwt. The manufacture of sugar of lead was not profitable during 1898, the exports decreasing year by year; in 1896 the figures were 1,533 tons, 1897 1,176 tons, and 1898 1,119 tons. The main reason for the decline is the establishment of new factories in other countries, with which the German manufacturer finds it impossible to compete. A problem which exercises greatly the minds of Germans just now is the form and substance of the forthcoming commercial treaties. In 1904 the German commercial treaties with all countries will lapse, and the Germans are wide awake enough to appreciate the importance of getting favourable new tariffs negotiated. Other nations, too, will be well advised to pay equally close attention to the matter from their side. In respect to this country, owing to our denunciation of the treaty with Germany in 1897, treaty arrangements have already lapsed, and there does not appear to be any hurry to get the new treaty settled. The jealousy, according to the Germans, is on our side, and is attributed by them (so says Mr. Schwabach) to the circumstance that England is still in doubt "as to the development of the 'Customs Union of Great Britain'." He is of opinion that the provisional tariff now in operation cannot fail to be detrimental to trade, and considers it desirable that the new commercial tariff should be settled as soon as possible; or, in place of the provisional tariff, that a contract should be made to render the tariff legal until 1904, a date at which, as already stated, the commercial tariffs with all other countries will lapse.

INDIAN opium to the value of 437,121*l.* (783,904 lbs.) was imported into Canton in 1898, against 399,243*l.* (574,325 lbs.) in 1897.

Marriages.

ARMBRECHT—ARROWSMITH.—On September 2, at King's Weigh House Church, London, by the Rev. A. Sandison, Ernest Louis Nelson Armbrecht, pharmaceutical chemist, only son of Mr. E. L. Armbrecht of Duke Street, Grosvenor Square, to Alice Winifred, only daughter of Mr. G. W. T. Arrowsmith, chemist and dentist, Whitstable.

ARROWSMITH—ARMBRECHT.—On September 2, at King's Weigh House Church, London, by the Rev. A. Sandison, George Micklem Arrowsmith, of Broadstairs, eldest son of Mr. G. W. T. Arrowsmith, chemist and dentist, Whitstable, to Frances Charlotte Nelson Armbrecht (Nellie), eldest daughter of Mr. E. L. Armbrecht, of Duke Street, Grosvenor Square.

BRUNNER—BURGOYNE.—On August 31, at the Cathedral Durham, by the Venerable the Archdeacon of Northumberland, assisted by the Rev. G. W. Anson Firth, M.A., Minor Canon, Francis Wilfred Brunner, Lieutenant Royal Engineers, second son of Mr. Henry Brunner, of Huyton, Liverpool (and of the firm of Brunner, Mond & Co., Limited, chemical-manufacturers), to Margaret Emilia, only daughter of Captain Roderick Hamilton Burgoyne, late 93rd Highlanders.

HARRIES—ROBATHAN.—On August 31, at Westminster Road Congregational Church, Handsworth, Birmingham, by Rev. Charles Deeble, Arthur Hayward Harries, chemist and druggist, Handsworth, Birmingham, to Gertrude, only daughter of the late Mr. Thomas Robathan, of Handsworth.

HEIGHINGTON—BURBIDGE.—At Pa'ney, on September 4, T. Gordon Heighington, chemist and druggist (Harrod's Stores, Limited), to Rose, daughter of Mrs. C. Burbidge.

PRIOR—ROBINSON.—On August 31, at Bedford, by the Rev. John Brown, D.D., James Siddall Prior, pharmaceutical chemist, Stamford, to Gertrude Helen, only daughter of Mr. W. J. Robinson, Bedford.

Deaths.

GARRAD.—On August 18, Mr. Charles Garrad, chemist and druggist, Leamington. Aged 68.

HEDEN.—On August 26, Mr. Joseph Henry Heden, chemist and druggist, Leamington. Aged 26.

RICKARD.—On August 30, at 136 Maygrove Road, West Hampstead, N.W., Sarah, wife of Mr. William Thompson Rickard, F.C.S. Aged 72.

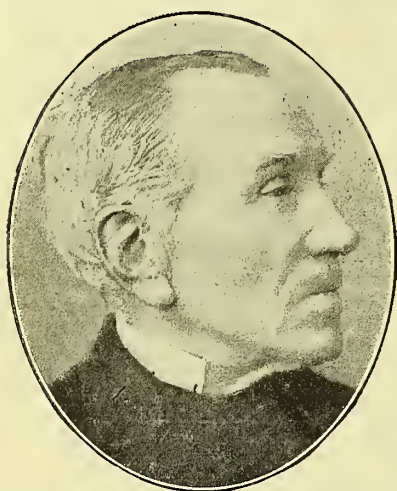
RITCHIE.—At Moss Side, Manchester, on August 29, Mr. Thomas Ritchie, chemist and druggist. Aged 71. The late Mr. Ritchie was well known to the trade in Manchester. He was born in Aberdeen, where he was apprenticed to Mr. Alexander Kemp fifty-five years ago. He was afterwards in Limerick for some years, then went to Manchester, first to Messrs. Wright & Barnaby, and afterwards to Messrs. Standing, Son & Co., Market Street, whose faithful servant he was for twenty years. He leaves a widow and grown-up family.

SPARGO.—At Lowestoft, recently, Mr. Jas. Alfred Spargo, chemist and druggist. Aged 80. The deceased gentleman had lately carried on business on Pier Terrace, Lowestoft, in the premises now occupied by Messrs. Fryer & Co. Prior to that he had a business in the Isle of Wight, where he was appointed chemist to the Queen. He was the son of Lieut. Sampson Jones Spargo, of the 1st West India Regiment, and was born at Penryn, Cornwall. He entered Charing Cross Hospital as a student in 1840, and the next year he took the first prize in chemistry. Owing to his dislike to surgery, he gave up the study of that profession and commenced business as a chemist at Falmouth. He went to Lowestoft in 1877, and was a prominent Freemason, having been a P.M. of the Three Grand Principles Lodge, No. 957.

TOWNLEY.—On August 20, Mr. Thomas Townley, chemist and druggist, Tarporley. Aged 70.

Pharmaceutical Veterans.

Mr. John Elliott—In THE CHEMIST AND DRUGGIST of August 26 it was reported that Mr. and Mrs. John Elliott, of Berwick-on-Tweed, had celebrated their golden wedding. Mr. Elliott is one of the oldest chemists in Great Britain. He has been connected with pharmacy for nearly seventy years, and during sixty years has been in business on his own account. Writing to us the other day, Mr. Elliott mentioned that he had been a subscriber to THE CHEMIST AND DRUGGIST from its first number, and that in one of our earliest numbers was given the report of a sheep-dip lawsuit in which he was concerned. It was a costly case for Mr. Elliott, as it involved him in a loss of 22,000*l*. But he rose superior to this disaster, has lived to recover from it and to build up a sheep-dip business of greater magnitude than he had before. Mr. Elliott is still fit for a twelve to fourteen hours'



day behind the counter, and writes to us in a firm hand. He is a native of Temple, near Dalkeith, where his father was a forester to Lord Dunglass. As a boy, Mr. Elliott went to learn farming, but while at that he got the notion into his head that he would like to be a doctor, and in due time he made his way to Edinburgh, where he worked hard all day and read through the long night, until

at 18 he had raised sufficient money to admit him as a student to the University. Here, by toiling at his books day and night, he made a name for himself among the students of his years, but his cash gave out, and he had to finish study abruptly. He then crossed the Border, entering Berwick on the top of a stage-coach, in the days before railways, and alighted in front of the Red Lion Hotel on a cold November night in 1839, with eightpence in his pocket. He conducted the chemist's business in Bridge Street, belonging to Mr. Wilson, for almost two years, and was passing rich on forty pounds a year. On the business in Hide Hill, occupied by Mr. Hogarth, becoming vacant in August, 1840, Mr. Elliott secured it with a capital of 7*l*. The old stereotyped business soon became invested with new life, and it had taken on many important responsibilities before the name-board of John Elliott had been long above the door. He had been barely twenty years in business before he was involved in the sheep-dipping case, which he determined to fight to the bitter end, assured that if the verdict went against him, he had gained a prominence in the public eye that would outlive the penalties of the law. Thus early did he believe in the virtues of advertising. There is a good deal of the Little Jack Elliott in Mr. John Elliott's composition, it will be seen. Mrs. Elliott is a Berwick lady; she was a Miss Weatherhead, and is now ninety years of age.

Mr. R. T. Watson.—The Register of Pharmaceutical Chemists records the fact that Mr. Richard Thomas Watson owns No. 741 Major certificate. Mr. Watson is another of our early subscribers. He commenced business as a pharmaceutical chemist at Jarro-on-Tyne, and was there twenty-four years, when his health began to fail; then he moved to Cheltenham, where he also built up a good business in the course of seven years. His health again compelled him to make a move, and this time he began to represent Messrs. Southall Brothers & Barclay, of Birmingham, with whom he remained seven years. He was again compelled by his health to give up travelling and moved to Cotherston, in the

Teesdale Valley, five years ago, where he now lives in retirement. Mr. Watson is a Justice of the Peace, and in the Teesdale Valley has been very active in public work, especially in an action which he took as a Customary tenant of the Manor of Cotherston-with-Hunderthwaite to get back from the steward certain sums which he was compelled by him to pay in excess of what he as a tenant said he was bound to pay for admission and copy of the admission to the tenancy of the Manor. Although the sums amounted to 16*s*. only, a question of principle was at the bottom of the action, and Mr. Watson fought the case in the County Court, High Court of Justice, and the Court of Appeal. Lord



Justice A. L. Smith in the last-mentioned court gave a learned judgment in Mr. Watson's favour on November 2, 1898. The result will save the Customary tenants of Cotherston-with-Hunderthwaite many a 5*l*. note. We have not too many fighters of Mr. Watson's type in the drug-trade.

Personalities.

M. SPIRIDON J. MANASSEH, dispenser at the Friends Foreign Mission Hospital, Brummana, Beyrout, is now in England, extending his acquaintance of English methods.

MR. THOS. J. SWAIN is going out to Australia as representative for Messrs. Burgoyne, Burbidges & Co., Coleman Street, and Messrs. Houghton & Co., photographic dealers, Holborn.

SIR WEMYSS REID is engaged on the "Memoirs and Correspondence of Lyon Playfair, first Lord Playfair of St. Andrews," which will be published by Cassell & Co. in the autumn. The work is based on a volume of autobiography left by Lord Playfair.

MR. GEORGE BROWN, M.R.C.S., an active and prominent member of the British Medical Council, who originally started and has been editor of the *Medical Times and Hospital Gazette* since 1873, has resigned the latter position in consequence of many other demands upon his time.

THE EVOLUTION of the present gigantic herb-extract business built up by Mr. Mason, of Nottingham, is appreciatively sketched in a recent issue of *Pearson's Weekly*. The writer eulogises Mr. Mason's foresight in being able to provide for the revulsion of feeling from the days when the person who, if he did not get drunk after dinner, was not considered a man, to the present day when drunkenness is a disgrace.

THE silver wedding of Mr. and Mrs. Charles Swinn, of St. Mary's Pharmacy, Hulme, Manchester, was celebrated by a dinner and presentation at the Western Hotel, Moss Side, on September 4. The testimonial consisted of tea and coffee services worth about 40*l*. Mr. E. G. Simpson presided, and made the presentation. The committee numbered over forty, and included Alderman Gibson, ex-Lord Mayor of Manchester, and Dr. A. B. Ritchie. In addition to the Chairman's eulogy of the life and character of the recipients of the testimonial, complimentary speeches were delivered by Mr. J. Pitt Hardacre, lessee of the Comedy Theatre; Mr. A. D. Corri, Theatre Royal; Mr. W. Craven, Mr. J. T. Richardson, Dr. Ritchie, and others. Several professional musicians gave their services, and Mr. L. Dottie entertained the company with one of his choicest recitations.

Correspondence.

In writing letters for publication correspondents should adopt a concise, but not abbreviated, style. They are requested to write on one side of the paper only. Letters, with or without a nom-de-plume, must be authenticated by the name and address of the writer. Queries should be written on separate pieces of paper, and the regulations printed under the sections to which they apply should be strictly observed.

What is Onycha?

SIR,—Leviticus xi. 12: "Whatsoever hath no fins nor scales in the waters, that shall be an abomination unto you." I think this clearly proves that onycha was not the operculum of sea-snails or any other kind of shellfish. Would the Almighty order any unclean thing in the preparation of what was undoubtedly the very essence of holiness and purity—the substance which was to come into His immediate presence? Exodus xxx. 36: "Where I will meet with thee: it shall be unto you most holy."

Ostervald's French Bible reads "Onyx," but the same word is given in Exodus xxv. 7, xxxix. 6 and 13, where the precious stone is clearly referred to. I do not think either the preparation from sea-snails or the onyx would come under the heading of "pure spices" clearly specified in Exodus xxxvii. 29.

Dr. Martin Luther translates the word balsam: "Nimm zu dir Specerei Balsam, Stachten, Galben und reinen Weihrauch, eines so viel als des anders." He also uses the same word in Genesis xxxvii. 25, "die trugen Würze, Balsam und Myrrhen," and in Genesis xliii. 11, "ein wenig Balsam und Honig und Würze und Myrrhen und Datteln und Mandeln." Balsam in the two last cases in our English Bible is translated balm, the same word as in Jeremiah viii. 22, "Is there no balm in Gilead?" Luther renders this "Salbe," "Ist denn keine Salbe in Gilead?" and in Exodus xxx. 31, he uses the same word to express the holy ointment: "Dies Oel soll mir eine heilige Salbe sein."

I would suggest that onycha was this balsam, an aromatic gum obtained from the *Balsamodendron* species *Opobalsamum* and *gileadense* by incision of the trunk, and that the balm of Gilead, "Salbe," was a salve or ointment prepared from the balsam.

I am, Sir, yours truly,

Haarwell Asylum, W.
September 5.

JOHN HICKMAN.

[Having learnt that Mr. E. M. Holmes, F.L.S., &c., Curator of the Museum of the Pharmaceutical Society of Great Britain, had made some inquiry on this subject, we asked him to give us his views, which he has been good enough to do in the subjoined letter.—ED.]

SIR,—In reply to your inquiry, the identification of ancient drugs and plants from their scriptural names is exceedingly difficult.

With respect to onycha, there is no doubt that the opercula of certain univalve molluscs have been for some hundreds of years used for fumigating-purposes and that they are still so used. That these formed an ingredient of the incense used by the Jews for a considerable period prior to the destruction of the Second Temple also appears certain. On the other hand, whether they formed a constituent in the incense used by Moses seems to me somewhat doubtful, unless the translation "sweet spices" is incorrect (Exodus xxx. 34). In no sense can it be called a sweet spice. There is in the Museum of the Society a specimen given to me in 1887 by Brother Basil, of the Order of the Sacred Redeemer. It was, he told me, purchased at a bazaar in the Presidency of Madras by a Mr. John Bradshaw. The operculum is a horny substance found in various univalve shellfish, and is used as a shield to close the orifice of the shell. It may be seen in the common periwinkle, and in the little shell common on chalk hills—viz., *Cyclotoma elegans*. It has nothing to do with mussels or other bivalve molluscs. In the specimen from Madras the opercula are about $1\frac{1}{2}$ inch long and 1 inch broad, and about $\frac{1}{10}$ inch thick, and have attached to the inner sur-

face a piece of the dried flesh of the animal. The odour is fishy and disagreeable, and when burnt the operculum gives off an odour resembling that of burnt feathers.

In an old Jewish Prayer-book, which the Secretary to the Chief Rabbi was kind enough to show me, a recipe for the incense used before the destruction of the Temple (incense being not now used by the Jews) is given. This recipe included, as chief ingredients, balm, onycha, galbannum, frankincense, and, in lesser quantities, myrrh, cassia, spikenard, saffron, costus, canella, cinnamon, soap of Carsina, and "a herb fitted to raise a fume." The onycha was to be refined by means of the soap of Carsina, and rendered more powerful by digestion in wine of Cyprus. The necessity for purification of the onycha seems to indicate that the operculum of a shellfish was used, at all events for a considerable time, since Siam benzoin does not require purification. In a footnote in the Prayer-book cloves is given as an identification of onycha; but the Chief Rabbi, Dr. H. Adler, of whom I inquired if cloves was ever used as a substitute for onycha, replied as follows:—

"The Hebrew word שְׁחָלִית (Shéchéleth), which is translated onycha, no doubt denotes the crustaceous covering of the shells of certain species of shellfish found in the Red Sea and Indian Sea. The Hebrew nonn is in all probability derived from a root שָׁלַח, which signifies 'to peel off.' It has some resemblance to a human nail. The translation 'cloves' is incorrect."

The only explanation I can offer of cloves being considered an equivalent of onycha, as mentioned by your correspondent Mr. J. E. Levin, is that the name cloves is derived from the French *clou*, a nail, although the word means an iron nail, not a finger-nail. Such mistakes are apt to occur from ignorance of other languages. The use of the word "canella," a West Indian spice, in Jewish ancient incense is another case in point. With respect to the use of Siam benzoin in the preparation of incense at the present day, I may state that having seen a very large quantity of that drug in the Fenchurch Street Dock warehouse from time to time, and knowing that it is not the kind commonly sold by druggists, I asked the head man there what became of it all. He replied, "It goes chiefly to Spain and other Catholic countries for making incense." Whether benzoin was known to the Egyptians in the time of Moses we have yet to learn. Its Arabic name, a corruption of Luban (incense*), Jawi (Java) contracted into benjamin and then into benzoin, indicates its use as incense; but until we know whether it was carried to Egypt and Arabia by the trade-routes existing in the time of Moses we have no justification for believing that he used it. A specimen of balsamic resin found in Egypt, and apparently consisting of Siam benzoin, dates back only to the sixth century B.C. (*P.J.* 3, xix. 387, 388). On the other hand, it is difficult to believe that a regular article of commerce like benzoin should have been unknown to the Jews when aloes-wood and cassia, which come from the Far East, were known and used in the time of Solomon. Moreover, in Ecclesiasticus xxiv. 15, the odour of onycha is described as pleasant, and the Hebrew word might perhaps apply equally to a product scraped off a tree, as Siam benzoin is.

Your correspondent Mr. C. C. Bell speaks of landanum (Jadanum?). This is usually considered by biblical critics to be the fragrant substance obtained in Cyprus, &c., from species of *Cistus*, and erroneously translated myrrh in Genesis xliii. 11, where a different Hebrew word is used from that generally translated myrrh.† The balm mentioned in the recipe for incense in the Jewish Prayer-book is probably what is now known as Mecca balsam, but to the ancients as balm of Gilead (Genesis xxxvii. 25, Jeremiah viii. 22). It is also probably the stacte of Exodus xxx. 34, which is described by old writers as a kind of liquid myrrh (a very natural conclusion since the tree grows in the myrrh districts, has a similar habit, leaves, and fruit, differing chiefly in the absence of thorns). This, however, is by no means certain, since Vignoli ("Liber Pontificales, Rome, 1724-55") mentions balsam, storax isaurica, as well as stacte ("Pharmacographia," 2nd ed. page 137).

Another instance of the difficulty of identifying scriptural

* The word meant originally milk, from the milky appearance of the frankincense when it exudes from the tree.

† See "Smith's Dictionary of the Bible," art. Myrrh.

plants and plant-products occurs in the case of manna. This has been referred to sugary substances dropped from trees or shrubs, and also to a hard lichen, *Lecanora esculenta*, neither of which agree with the statement that if kept under ordinary circumstances it bred worms and stank, and that it melted—i.e., disappeared—when the sun waxed hot (Exodus xvi. 20, 21). The only substance likely to answer these characters would be a fungus.

Hyssop is also another case in point. The plant to which the name of *Hyssopus officinalis* is now given is a native of Europe and temperate Asia. The plant that has the local reputation of being the hyssop of the Jews is, judging from the specimen given to me by the Rev. Arthur Hall (who obtained it on Mount Sinai, where it was pointed out to him by the Arabs as hyssop), from its taste and odour of thymol, some species of *Origanum* or a nearly allied genus, but as it has no flowers it could not be safely identified.

E. M. HOLMES.

17 Bloomsbury Square, W.C., September 6.

The Ionone Patent.

SIR.—In an article ("The Ionone-case") which appeared in your issue of August 12, you dealt with the recent litigation which had for its object the revocation of the ionone patent, No. 8,736 of 1893, granted to Tiemaun. This article is erroneous in certain respects, to which, in fairness to ourselves, we desire to call attention. The writer of the article was under a misapprehension in thinking that the accuracy of Dr. Stiehl's work and conclusions could have been made any material issue in the case. The case for the petitioners was based solely upon the alleged insufficiency of Tiemaun's specification, and the decision of Mr. Justice Cozens-Hardy upholding the patent does not imply the rejection of either the work or conclusions of Dr. Stiehl. Further, inasmuch as an opinion is expressed in the said article that Dr. Stiehl's results were wrong, we think it only fair to that chemist to call attention to two communications (Bouveault, *Bull. Soc. Chim.* 1899, 3 series, No. 21; Barbier, *Bull. Soc. Chim.* 1899, 3 series, No. 21, 635) which support his conclusions.

We have entered an appeal in this matter, and, pending the hearing and the result of such appeal, it would not, we are advised, be right to make any further comments in the matter; and in this letter we have, therefore, simply confined ourselves to the points to which we call your attention.

We beg to remain, Sir, yours faithfully,

Hamburg, September 2. FRANZ FRITZSCHE & CO.

Mr. Gifford's View.

SIR.—It would be interesting to know the real opinion of the *C. & D.* as to the function of a pharmacist. On page 93 (July 15) you clearly indicate that your conception is that the pharmacist should be trained for assistantship, and the examinations should be so regulated that unqualified traders shall be enabled to obtain sufficient qualified men at a reasonable rate. [This is an utter perversion of our statements.—ED.] Again this week similarly. But the hollowness of it all! It is so evident that you, of all people, know the puerility and inappropriateness of all this fiddling with anything and everything but the thing which lies at the root of the matter.

In my mind, you know qualified directorship must of necessity be a farce, supposing for a moment it could get consideration. It is put forth also, in my opinion, simply as a red herring. I go through this town, every town, and I find myself surrounded by illegitimate practice of pharmacy—to such an extent that pharmacy to-day is a disgrace to the Pharmaceutical Council. This condition has become so glaring and so absurd that you can stop the first person in the street, explain the circumstances, and he is amazed that a body of men exists who will submit to such a state of things. When we find that our case can be put before any disinterested person, and that no mind can understand why men should be asked to undergo training and examination before acquiring titles, yet we find those titles actually and legally used by unqualified people! That is the first thing the man in the street cannot understand our submitting to. Then what is the natural position to take up? Titles for the qualified—the personality of the qualification pure and simple—a position understandable by ordinary

people—a principle impossible to disallow—a principle which will be supported through everything by all professions; and this is the principle which we in Lancashire at any rate will not compromise. This, we say, can be got, and nothing less is the slightest use. We are fully aware that the apathy of the last twenty years makes this a work of some magnitude, but with united action it is as certain to be allowed as night follows day, for the simple reason that that alone can do away with a wicked and silly anomaly. The second thing which the man in the street cannot understand, and which all educated thought calls absurd, is the patent fact that Tom, Dick, and Harry can do everything which chemists must be specially trained for barring only a little childish work the responsibility of which is a thousand times greater than the remuneration. Now we say it is apparent that any drug, herb, or chemical which can be called potent should be entrusted only to trained and responsible persons. We do not bother our heads about Lord Chancellors or company-promoters, or even members of Parliament: we strive for a position which the public will support, claiming our title and a sphere of work. We, as practical people, are not going to be taken away from this by any red herring. We have proved it locally; it can be proved generally, and every incident of the last year confirms us. Why, the Lord Chancellor practically says that the principle (qualification) is a sacred one, only we have acquiesced in the illegitimate so long that you can only make it possible to give effect to your claim by being united and by exposing the absurdity to the public.

Now, Sir, you cannot controvert these statements. Yet you would have me waste time in considering all sorts of fantastic will-o'-the-wisps—talk about registration of unqualified people and the self-evident absurdity, qualified directorate. Can you wonder if I consider your aim to be to get qualified chemists at cross purposes?

Yours faithfully.

Blackburn, September 4.

R. LORD GIFFORD.

[We do not wonder at anything Mr. Gifford considers or says. Where we mainly differ from him is in the fact that we address ourselves to a definite proposal in regard to the company-pharmacy question which has been put forward on behalf of the Government. We naturally suppose that this will be considered by Parliament before Mr. Gifford's view, which, by the way, so far as the "personality of the qualification" is concerned, is just what we put to the Pharmaceutical Council twenty years ago, but we called it "qualified ownership." We are not opposed to the reservation of Pharmacy Acts titles to those alone who are registered under the Acts.—ED.]

Chlorinated-soda Solution.

SIR.—I have used chlorinated-soda solution for ten years or more in the estimation of urea by the heat evolved, and in the same way for the estimation of all ammoniacal salts and their solutions, and, less quickly, for the estimation of albumens in solution, and in powders such as flour and meals. During the ten years I have only met with one retail pharmacy where I could obtain chlorinated-soda solution which would react upon urea; sometimes it has been kept too long, but I have known it to be just received from the wholesale druggists pungent with chlorine but still without action. Some of my miller and baker friends have found the right side of the pharmacist's attention and can get what they want; a Scotch miller sent me a dozen quantitative estimations of his flour which he had made himself a few nights ago—I dare say the whole made in about an hour and a half and with an accuracy comparable to the Kjeldahl process of combustion—and I know he has an attentive friend in his local pharmacist, a much respected pharmaceutical examiner known on both sides of the Tweed. Now, a baker recognises the strength of his chlorinated-soda solution in a few seconds, or in a few minutes, and would have the utmost contempt for our official method of ascertaining whether the solution was of full strength. He would take a $\frac{1}{2}$ -oz. phial and put in about 1 dr. of the chlorinated-soda solution, read off the temperature with a small thermometer, and—the thermometer remaining *in situ*—he would add about 2 gr. of some powdered ammoniacal salt, or one or two drops of liquor ammoniæ fort., when the temperature immediately mounts up 18° or 20° F. Should ammoniacal salt or solution not be handy, he would add 1 gramme of flour or meal and wait four minutes for the same results. I know a

whole class of working-bakers who would estimate the official ammoniacal salts or their solutions in two or three minutes accurately, or the percentage of albuminoid in a flour in five minutes accurately. Such have to obtain their chlorinated-soda solution from the wholesale: they find, as I have done, the retail solution useless.

Yours faithfully,

J. BARKER SMITH.

4 Holmdene Avenue, Herne Hill, S.E., August 19.

Miscellaneous Inquiries.

We reply to subscribers and their employes only upon subjects of interest to other readers generally. When more than one query is sent write each on a separate piece of paper. When a sample accompanies a query full particulars regarding the origin and use of the sample must be given, and it must be distinctly labelled. Queries are not replied to by post, and those sent anonymously are disregarded.

Notice to Querists. full particulars regarding the origin and use of the sample must be given, and it must be distinctly labelled. Queries are not replied to by post, and those sent anonymously are disregarded.

93/74. Pepper.—The Adulterations of Pepper are woody fibre, olive-stones, and sometimes chalk, starch, ground rice, and exhausted ginger. The ash of white pepper should not exceed 2 per cent. and of black pepper 8 per cent. More than 1 per cent. of ash insoluble in hydrochloric acid indicates adulteration. Woody fibre is detected by Stokes's test, in which the amount of fibre found after boiling with dilute sulphuric acid is compared with the quantity known to exist in genuine samples. Poivrette (ground olive-stones) is detected microscopically and by the fact that it changes to a reddish colour on the addition of sulphuric acid, and with acetate of aniline yields a yellow colour.

90/60. R. W. C.—Blood-mixture:—

Potass. iodid....	...	...	gr. xxxvj.
Potass. chlorat.	...	...	gr. xxx.
Liq. arsenicalis	...	...	℥xxiv.
Spt. chlorof.	...	...	℥ij.
Dec. sarsæ co. ad	...	...	℥vj.

M.

℥ss. ter in die.

272/14. W. H. G. (Laurence, Mass.).—Sir Wm. Roberts's "Collected Contributions on Digestion and Diet," 5s. (Smith & Elder), is the book referred to in the U.S. Dispensatory in the article on pancreatin.

91/8. A. J. N.—Copying-graph:—

Gelatin	...	...	1 part
Glycerin	...	...	4 parts
Water	...	...	2 parts

All by weight.

Soak the gelatin in the water over night, add the glycerin, and dissolve in a water-bath.

94/6. Timon.—(1) If you shake the olive oil with an acid solution of potassium permanganate it will probably remove the sickly odour. (2) We have not heard of such a thing as "spirit soluble white." All the white pigments we can think of are metallic powders, which have to be suspended in liquids.

95/4. Quinine writes:—"A lady asked me to prepare 24 gr. of sulphate of quinine with enough sulphuric acid to dissolve it," and he wants to know how he should do it. [A drop of dilute sulphuric acid dissolves 1 gr. of sulphate of quinine, and by using 30 drops solution is easily attained. The customer probably only wants the quinine in solution for adding to a bottle of wine.]

94/59. Fireman.—Cramp-mixture for Sailors. — A draught (two tablespoonfuls) should consist of—

Tr. aconiti	...	...	℥v.
Sodii bromid.	...	...	gr. xij.
Tr. chlorof. co.	...	...	℥xv.
Aq. menth. pip. ad	...	...	℥j.

Relief generally follows in five minutes after taking this.

94/71. X. Y. Z.—Tender Feet.—Soaking the feet in an astringent solution, such as tannic-acid or alum solution, gives relief when they are hot and tender. There is no means of curing the complaint; it is constitutional.

92/35. Szolol.—Urine is of little use as manure. The nitrogen exists chiefly as urea, which decomposes too readily. Nitrate of soda or sulphate of ammonia makes a far better fertiliser.

92/61. Ilex.—Your inquiry was replied to on August 19, page 339.

92/32. M. R. C. V. S.—Anguentum or Anguintum is a synonym for ung. plumbi albi (Ph.E.), made by mixing 1 part of white-lead with 5 parts of simple ointment. It was commonly known as "white ointment" and, probably being in much demand, simply "ointment." It is not difficult to imagine the evolution of angucntum from the Latin unguentum.

93/22. R. C. E.—The formula for Vin. Diuretique (Trosseau) is—

Digitalis-leaves	...	...	℥iv.
Squill	...	...	℥ij.
Juniper-berries	...	...	℥iiss.
Sherry	...	...	℥xxvij
Rectified spirit	...	...	℥iij.

Bruise the solids and macerate for five days in the menstruum; then press and dissolve in the liquor 12 dr. of acetate of potassium, and filter.

Dose: One to two tablespoonfuls.

96/27. J. O —Enamelled letters are removed from windows mechanically after soaking for a day or two with paraffin.

93/41. E. W. W.—Tragacanth Hair-curling Fluid:—

Powdered tragacanth	...	...	℥v.
Ess. of white rose	...	...	℥ss.
Solution of potash	...	...	℥ss.
Water	...	...	℥j.

Shake the tragacanth and essence together, add the water, and lastly, the solution of potash.

95/7. A. B.—From what you say about the sample of dye it is probably similar to the formula for aniline marking-ink given in "Pharmaceutical Formulas," page 376. In that formula aniline, hydrochloric acid, and copper chloride are used.

91/13. G. F. G. G.—Fireproofing Fabric.—The following is a suitable fluid:—

Tungstate of soda	...	...	℥xvj.
Water	...	...	℥iiss.

Dissolve and add—

Phosphate of soda	...	...	℥ij. ℥ij.
Water	...	...	℥j.

Or a sufficiency of water to make the solution sp. gr. 1.140.

Other recipes are given in "Pharmaceutical Formulas," or you could use the new "Fireproofine," which Fordhams have just placed on the market.

97/25. Velox.—(1) Restoring Hair on Bald Patches of Horse.—The following ointment is an excellent application for the purpose, but will, of course, be useless if the hair-follicles are destroyed:—

Pulv. boracis	...	...	℥j.
Pulv. canthar.	...	...	℥j.
Ol. picis	...	...	℥lxx.
Pulv. camphor.	...	...	℥j.
Adipis ad	...	...	℥j.

M.

Use night and morning.

(2) Battery-solution:—

Potassium bichromate	...	...	℥ss.
Mercury bisulphate	...	...	gr. xxx.
Sulphuric acid	...	...	℥v.
Water	...	...	℥vj.

Mix the acid with the powdered bichromate, allow to stand for an hour, then slowly dilute with the water, and add the mercury salt.

99/34. *T. P. B.*—Aq. sambuci tripl. should be labelled 1 to 2, not 1 to 3.

97/13, *Nemo*; 94/73, *Fisherman*.—Either Bismarck brown or chrysoidine is used in alcoholic solution for dyeing maggots for fishing.

6/14. *Bichromate*.—Both benzopurpurine and primuline become fungoid when mixed with water and allowed to stand. Bichromate of potash keeps indefinitely. You might add a preservative, such as formalin, to the paste.

99/61. *W. B.*—The simplest form of Household Ammonia is the following:—

Yellow soap ...	...	...	gr. x.
Lavender-water ...	...	...	oj.
Strong solution of ammonia ...	...	...	3v.
Distilled water to ...	...	...	Oj.

From a teaspoonful (in the water for washing the hands) to two tablespoonfuls is used at a time, according to requirement.

273/2. *Spero*.—Materia-medica book for Major students.—Flückiger and Hanbury's "Pharmacographia," 21s. (Macmillan), or Greenish's "Materia Medica," 15s. (Churchill).

96/58. *Lozenges*.—It is the chlorodyne that gives the distinctive flavour to linseed, liquorice, and chlorodyne lozenges. We gave suggestions for a formula in the *C. & D.*, February 2, 1897, page 327.

91/28. *Guttapercha*.—Guttapercha is soluble in carbon bisulphide, benzol, and chloroform. Your non-success with carbon bisulphide is due to your sample of guttapercha, which has perished. Try another sample of guttapercha.

101/45. *Ozone*.—You will get the information you require about liquid air from Brin's Oxygen Company, Horseferry Road, Westminster, S.W. Messrs. Lennox, Reynolds & Co., Rosebank Works, Fulham, are the engineers who make the apparatus used at the Royal Institution.

91/26. *Rapha*.—There is a slight reaction in a powder of caffeine, antifebrin, and antipyrin which causes it to go damp. Place the mixed powder in a damp cellar for a few days to encourage the reaction, and then dry it by a gentle heat.

106/69. *Borderer*.—The cloth which you send seems to have been dyed with one of the diamine fast reds, but has been treated with a strong solution of alkali, and then allowed to lie wet. The stain cannot be removed without serious injury to the cloth.

101/70. *Serge*.—Testing Indigo-cloth.—Refer to *C. & D.*, September 10, 1898, page 464.

73/16. *Creol*.—The sample of Finch-seed has been carefully examined, and found to consist of the seeds of nine distinct plants. It will be observed that many of them are well-known oil-seeds. The following are their names, together with percentage in the sample:—

	Per cent.
Rape (<i>Brassica campestris</i> var.) ...	22
Niger or ramtil (<i>Guizotia abyssinica</i>) ...	20
Canary (<i>Phalaris canariensis</i>) ...	16
Poppy or maw (<i>Papaver somniferum</i>) ...	12
Teazle (<i>Dipsacus Fullonum</i>) ...	11
Groats (<i>Avena sativa</i>) ...	6
Sesamum or gingelly (<i>Sesamum indicum</i>) ...	5
White linseed (<i>Linum usitatissimum</i>) ...	5
Hemp (<i>Cannabis indica</i>) ...	3

69/36. *A. L. B.*—We are unable to identify the root sent for determination. It is similar in structure to the roots of some of the genera of *Polygonacea*, and may perhaps be furnished by a species of *Rumex*.

104/29. *Gelatine*.—The best thing for preserving the Gelatin Moulding-composition is formalin in the proportion of 20 drops to a gallon of water used in making the composition; but this addition toughens the composition somewhat, and that may be an objection. Otherwise salicylic acid (a teaspoonful to the gallon of water) may be employed.

London Drug Statistics.

THE following statistics are compiled from information supplied by public warehouses. They relate to the receipts and deliveries of some of the leading drugs from and into the London public warehouses from January 1 to August 31, 1899, and to the stocks on August 31. Their accuracy cannot be guaranteed.

	August		Stocks		1899	
	Landed	Delivd.	1893	1893	Imprtd.	Delivd.
Aloes cs &c.	51	180	2,295	2,758	913	1,381
"..... gourd	—	—	1,025	3,042	2,269	2,964
Anise, star cs	—	9	70	55	260	195
Balsam csks &c.	40	86	847	516	1,513	841
Calumba-root ..bgs	258	44	435	1,189	1,035	1,135
Camphor pkgs	—	452	5,658	9,417	6,236	5,441
Cardamoms cs &c.	447	293	2,454	1,714	1,353	2,719
Cinchona pkgs	2,268	1,889	18,558	21,150	14,096	15,629
Cubeb bgs	—	24	1,929	1,937	127	141
Dragon's-blood ..cs	63	11	123	16	211	135
Galls pkgs	—	518	4,961	6,212	6,279	4,299
Gums—						
Acacia "	2,336	2,186	10,472	10,807	11,746	14,338
Ammoniacum .. "	1	—	96	29	27	39
Animi & copal ..	3,892	2,882	15,875	41,187	28,134	26,529
Asafetida .. "	351	56	760	470	1,367	897
Benzoin "	235	266	1,646	3,113	1,548	2,046
Damar "	1,107	313	4,669	3,674	4,764	3,227
Galbanum .. "	—	—	17	—	—	13
Gamboge "	74	13	404	319	181	170
Guaiacum .. "	19	—	56	104	64	66
Kauri tons	296	297	1,522	464	3,468	2,561
Kino pkgs	6	5	73	43	91	84
Mastic "	—	1	33	16	28	30
Myrrh, E.I. .. "	61	17	265	471	154	227
Oilbanum .. "	372	203	3,706	3,907	4,715	4,405
Sandarac "	69	144	678	1,153	853	922
Tragacanth .. "	301	499	1,858	2,199	6,289	5,906
Ipecacuanha, Rio bls	107	18	163	214	332	327
" other kinds pkgs	31	14	47	31	240	208
Jalap bls	—	—	348	340	160	115
Nux vomica .. pkgs	72	28	410	264	1,377	1,093
Oils—						
Anise cs	—	22	215	142	93	165
Cassia "	33	1	112	55	43	7
Castor pkgs	144	167	914	601	1,639	1,473
Coccol-nut .. tons	226	195	3,21	249	974	854
Olive csks, &c.	247	328	855	1,061	2,075	1,767
Palm tons	8	2	14	17	31	23
†Quinine sulph.. lbs	4,343	3,997	171,797	107,446	90,625	37,077
Rhubarb chta	277	96	1,416	714	719	930
Sarsaparilla .. bales	74	113	392	463	803	777
Senna bls &c.	552	228	824	1,171	1,733	2,125
Shellac, all kinds cs	6,481	4,183	51,633	57,185	26,613	32,048
Turmeric tons	17	53	240	305	323	287
Wax, bees' pkgs	753	447	1,550	2,387	4,237	3,919
" Japan ..cs &c.	100	82	403	565	535	503

* Stocks of aniseed and cassia oils lying at Smith's Wharf and Brewer's Quay are not included in this return.

† Includes the quantity at Red Lion, Bull, and Smith's Wharves; also the Docks.

NOTE.—The stock of aloes in cases remains almost unchanged, and the deliveries continue good; gourds, however, have not been in request, but the stock is not heavy, compared with former years. The deliveries of balsams have been on a smaller scale than last month, although the stock is less than last month, but 331 casks, &c., more than last year. The demand for calumba has fallen away, the deliveries being exceedingly light when compared with those of July; moderate arrivals have doubled the stock. The poor demand for dragon's-blood is shown by the small delivery of 11 cases, while the stock has risen from 71 to 123 cases. The bulk, however, is of medium quality, and the demand is mostly for fine. Stocks of cardamoms have slightly increased, but there is very little of fine quality; deliveries were not quite so good as last month. The statistical position of camphor would appear to be healthy, as during August there were no arrivals, and the deliveries were moderate; stocks have also been reduced by 452 packages. Our stock of beeswax is small compared with what it was at the same time in former years, owing to the deliveries being largely in excess of the arrivals and on account of the demand, especially for Jamaican, Madagascar, and Zanzibar wax. Asafetida is accumulating, 325 packages having been added to the stock in August; arrivals during the month were exceptionally heavy—viz., 381 packages—and deliveries poor. The stock of kino is exactly what it was last month, but deliveries have fallen by 20 packages. Arrivals of ipecacuanha have increased the stock by 89 of Rio and 17 of Cartagena, but the position of the article has an element of strength behind it, as the stock is by no means large. The position of rhubarb has changed for the worse, the stock being about double that of previous years—viz., 1,416 chests—while the arrivals remained heavy (277, against 68 in July) and the deliveries light. Good deliveries of senna have been made during August.

Trade Report.

The prices quoted below are the bottom prices obtained for bulk quantities by importers and manufacturers, who do not supply retailers. They are in many cases exclusive of various charges.

42 Cannon Street, London, E.C.: September 7.

A STEADY amount of business has been transacted in the drug and chemical markets, although there have been few alterations in prices. The chief movement of the week has been the decline in quinine in second-hands, which is attributed to the heavy bark-shipments from Java and the declarations for the forthcoming Amsterdam auctions. The consequence was that a small panic prevailed on Tuesday, much to the disgust of speculators. Ipecacuanha is quiet, holders, however, being firm, and the same may be said of opium. Acetanilide has been in good inquiry for export, but at extremely low prices, due to keen competition. Other alterations are as follows:—

Higher	Firmer	Easier	Lower
Dextrine	Lycopodium	Acid, citric	Acetanilide
Farina	Menthol	Ammonia	Cocoa-butter
Jalap	Morphia	sulphate	Ferri et
Manna	Oil, lemon-	Oil, cottonseed	quinine cit.
Oil, palm	grass	Oil, lemon	Oil, buchu
	Oil, pepper-	Oil, linseed	Quinine (sec.
	mint	Shellac	hands)
	Pepper		Soy
	Senega		
	Turmeric		

The following drugs have arrived at this and other British ports between August 31 and September 6, both inclusive:—Aloes (Cape), 100; aniseed oil (Chinese), 40; benzoin, 35; cardamoms, 76; castor oil (Fr.), 512, (Belg.) 49; chamomiles, 105; cinchona, 300, (Ceylon) 136; cocaine (crude), 5; cod-liver oil (Newf.), 20, (Norweg.) 100; coriander-seed, 451; croton-seed, 3; eucalyptus oil (Aust.), 20; gentian, 18; glycerin, 120; gum arabic (from Bombay), 570, (from Calcutta) 65, (from Aden) 201; gum myrrh, 25; honey (Jam.), 49, (Chil.) 15; kola (W.I.), 2; lime oil (W.I.), 57; juniper-berries, 3; nux vomica, 634; oil, castor (Ital.), 15; opium, 29; orris (Mogador), 4; rhubarb, 25; senna (Alex.), 10, (Tiny.) 190; shellac, 1,560; soy (Chinese), 523; squills, 27; turmeric, 47; vanilla (from New York), 10; wax, bees' (Jam.), 14, (E.I.) 20, (unenumerated) 11.

Trinidad Ipecacuanha.

We find that there is a specimen of the light-coloured root, offered in last drug-sales, in the museum at Crutched Friars drug-warehouse. The specimen is part of a parcel offered in sale some years ago, and was described at the time by the late Mr. P. L. Simmonds as the root of *Asclepias curasavica*, or wild Trinidad ipecacuanha. It grows in tropical America generally, and is used by the natives as an emetic and purgative.

The Lavender-harvest.

In confirmation of what we have already said regarding the lavender-crop in Surrey, the *Gardeners' Magazine* states that the harvest has the promise of being one of the best of recent years, for the brilliant sunlight has very highly developed the essential oil in the flowers. Our contemporary asserts, with an air of authority, that there is not, nor has there been for many years, such a thing as Mitcham lavender. There was a time, it adds, when Fig's Marsh boasted as many as five stills, and when Mitcham was certainly the centre of the lavender-industry; but the scene of operations has shifted, and now Beddington, Wallington, and Carshalton constitute, within a radius of about six miles, Surrey's lavender-growing area. Something like 150 acres is under cultivation in Surrey, notably at Carshalton, and "if the retailers maintain the Mitcham legend it is because the Surrey lavender is known for its quality, and Mitcham is a good name."

Heavy Chemicals.

[These prices are for other market-centres than London.]

The volume of business passing in the heavy-chemical market is very fairly maintained, and prices generally show little variation from the figures lately reported. The demand from the home-consuming trades is very satisfactory, and now that the holidays are practically over a still heavier demand is likely to be experienced. Dyers and calico-printers are all well supplied with orders, and keep working full time. Bleachers and finishers also keep very busy. Carpet-manufacturers, who have been somewhat quiet lately, are now in receipt of more orders, and the outlook for the coming season is distinctly promising. The continued good weather has had its effect on the paint and colour trades, which have been very busy, and from all appearances they are likely to continue so for some time to come. The pottery and glass trades have settled down again after the usual closing period, and business is rather better than it generally is at this period of the year. Papermakers are steady, and the soap-trade keeps busy, manufacturers' soaps particularly meeting with good request.

ALKALI-PRODUCE.—Caustic soda is in steady demand at the late advanced rates. Highest strengths tend a shade dearer. Bleaching-powder keeps moving steadily, a good demand being experienced for sanitary purposes. Soda crystals are in better supply.

SULPHATE OF AMMONIA is still weak, and a further decline seems probable.

RECOVERED SULPHUR is scarce, but unchanged, at 47. 15s. to 57. per ton free on rails in bags.

SULPHOCYANIDES are in better inquiry, and values have a tendency towards advance from the following: Barium, 95 per cent., 4½d.; ammonium, 95 per cent., 6d.; and potassium, 7d. per lb.

PEARL-HARDENING is moving well, at 37. to 37. 5s. f.o.b.

BORAX AND BORACIC ACID steady; the former, crystals at 16s., and powdered 16s. 6d. Boracic acid, 25s. and 27s. per cwt.

ZINC-SALTS firm. Sulphate (crystals), 77. 15s. to 77. 17s. 6d.; chloride solution, 77. 10s.

MAGNESIUM-SALTS are in fair all-round demand. Sulphate (Epsom salts) firm, at 60s. to 62s. 6d. per ton on rails in bags; chloride, 55s. to 60s. per ton; carbonate, 37s. 6d. to 40s. per cwt.; and calcined magnesite, 1s. to 1s. 4d. per lb.

Liverpool Market.

Liverpool, September 6.

CASTOR OIL.—The position has again improved, and good seconds is now quoted by all holders 3d. per lb., and for forward delivery the same figure is quoted. First-pressure French for shipment is higher, but holders on the spot are quoting as before.

CANARY-SEED.—Further parcels have changed hands at 39s. 6d. to 40s. per quarter. There are considerable inquiries, and a further advance seems probable.

BEESSWAX.—Several parcels have been sold at 67. 15s. up to 77. 5s. per cwt., and holders are firmer in their views.

HONEY, CHILIAN.—There are several inquiries for export, and for the lower grades higher prices are being quoted. Californian: There are inquiries for liquid, but none is offered. Some new may arrive shortly, and the owners' ideas are about 50s. per cwt.

SULPHATE OF COPPER.—Contracts for delivery next year are being made at 237. 10s. to 247. per ton.

QUILLATA-BARK.—Holders are firm at 137. 5s. to 137. 10s. per ton.

OIL, TURPENTINE.—Firm, at 34s. 9d. to 35s. per cwt.

German Drug Market.

Hamburg, September 5.

Business is quiet to-day, and since the last report there have been few changes.

CITRIC ACID is quiet and cheaper, at 305m. per 100 kilos.

CAMPHOR (REFINED) is also quiet, and shows very little activity; second-hand holders ask 325m. per 100 kilos.

CUMIN-SEED is dearer, at 56m. per 100 kilos. for new Maltese.

CARAWAY-SEED is also firmer and advancing, 1898 crop at 47m., and new crop 46½m. per 100 kilos.

COCAINE is very firm and in good demand; there seems to be very little left in second hands, and the manufacturers ask 520m. per kilo. for October delivery.

ERGOT OF RYE is still very scarce, and little is to be found; to-day's quotations are from 390m. to 400m. per 100 kilos.

MENTHOL steady, at 16m. per kilo.

LYCOPodium shows a strong market, and is held to-day for 285m. per 100 kilos.

QUILLATA-BARK steady, at 28m. per 100 kilos.

FENUGREEK-SEED firmer, at 13m. per 100 kilos.

QUININE is dull and neglected, with sellers at 37m. per kilo.

SANTONIN keeps firm but unchanged.

WORMSEED is steady, at 48m. to 55m. per 100 kilos., according to quality.

WAX (JAPAN) is quiet, at 56m. per 100 kilos.
 COD-LIVER OIL unchanged, 58m. per barrel. CASTOR is firmer, but the demand is very small; first-pressing, in barrels, 52m. per 100 kilos. CARAWAY-SEED OIL is dearer, 0-900, 9m. per kilo.
 PEPPERMINT OIL.—HG is quiet, at 4.90m. per lb., while Japanese is firmer, at 7½m. per kilo.
 Arrivals in Hamburg this week include sarsaparilla 200, camphor 16, camphor oil 837, croton oil 80, balsam copaiba 23, galls 310, cassia oil 25, and Japanese wax 350 cases.

American Market.

New York, August 29

Business has been unusually good for the season of the year. Manufacturers and jobbers all report an improving demand with the advent of fall, and there is every indication of an unusually prosperous fall and winter season.

OPIMUM has been more active than for some time past, and the market has a decidedly stronger appearance. For single cases \$3.10 has been paid; and, while more is to be had at this figure, large holders are asking \$3.15 to \$3.25.

QUININE is weaker, in sympathy with foreign markets. Domestic manufacturers have reduced prices to 30c., and one maker quotes 28c.—the same as foreign manufacturers. Second hands offer at 26½c.

CINCHONIDINE is in better supply, and 32c. will now buy.

CASCARA SAGRADA is weak, on account of the reported large crop. Quotations are still unsettled; but, while old bark is scarce, new crop has caused a decline: 5c. will still buy.

ALOES, CURACAO.—Scarce in consequence of small arrivals. Present quotations are firm at 3¼c. to 4c., but an advance is probable.

SENEGA-ROOT has sold for export at 35c. The advance is due to speculative manipulation, and seems likely to be sustained, as the new crop is concentrated in the hands of a few firms. Local holders quote 36c. and expect higher prices.

JALAP is moving upward in consequence of light supplies and concentration of stocks. Present values are strong at 12c. to 13c.

ERGOT is in light supply, and prices have taken a jump. German is held at 45c., and Spanish at 55c., and the tendency is still upward.

COCA-LEAVES are higher consequent on scarcity. For Truxillo leaves 25c. is asked, and for Huanuco 27c., but small parcels can be bought at lower figures.

BUCHU-LEAVES are in active demand, and quotations for "short" have advanced to 17c.

IPECAC. (RIO) is easier: \$3.65 to \$3.85 will now buy.

OIL OF PEPPERMINT is very firm. The new crop is estimated at not more than one-third the usual amount, and an improved demand will send prices up.

Cablegrams.

HAMBURG, September 7, 12 56 P.M.:—The firmness in lycopodium, cocaine, and ergot is unabated, and cumin-seed is now quoted 57m. per 100 kilos. Japan wax is selling at 56½m. per 100 kilos.

* * * *

NEW YORK, September 7, 3 P.M.:—Business is improving as the fall approaches. Round green buchu-leaves are very firmly held at 17c. per lb., while cinchonidine has been reduced to 30c. per oz. owing to freer offers. Southern senega-root is quoted firm at 35c., and Western at 36c. per lb. Ergot remains scarce at 62c., and Curaçao aloes, of which there have been few arrivals lately, is also in short supply at 6c. Quinine is quiet at 26c. to 28c. per oz., and Mexican sarsaparilla is firm at 7c. per lb.

London Markets.

ACETANILIDE.—Competition is getting keener, and in the anxiety to do business holders are quoting at ruinous prices—viz., from 9½d. to 10d. per lb. The inside figure has been accepted this week for a large export order (several tons), the higher price being for ton-lots. Good business has been done at the decline.

ACID, CITRIC.—Easier, at from 1s. 5½d. to 1s. 6d. per lb., according to make. Howards' quotation has been reduced to 1s. 6½d. per lb.

ACID, TARTARIC.—Firmly held at last week's quotations.

ARROWROOT.—At auction on Wednesday good Natal sold at 6½d. per lb.; and St. Vincent at 3¾d. per lb.

BENZON.—Since the auctions there has been a good demand for Palembang gum, at from 57s. 6d. to 60s. per cwt.

for first pile, and from 46s. to 47s. 6d. for ordinary seconds. An arrival of 15 cases medium to fair Palembang is reported, which will be catalogued for public auction by a firm of brokers who have not hitherto offered Palembang gum. The stock at the present time includes about 120 packages of this kind, the bulk of which has been sold. It is interesting to recall that in 1896-97 the stock of Palembang in the public warehouses alone was about 1,300 cases, at which period values declined to 18s. 6d. to 20s. per cwt. These unremunerative prices prevented merchants from importing, with the result that values have gradually advanced as stocks decreased. A few cases of ordinary Sumatra thirds have sold at 5l. 5s. per cwt., and fine seconds have sold at 8l. per cwt. and upwards. Fair glassy Penang is also inquired for.

CAMPOR.—Refiners report a fair amount of business this week at the official quotations. Crude, however, is quiet, at 132s. 6d. per cwt. for Japanese on the spot, and 130s., c.i.f., in second-hands, and 135s. from importers. Chinese is quoted at 140s. per cwt., c.i.f., but the second-hand figure is uncertain in the absence of business.

CINCHONA.—Our Amsterdam correspondent, writing on September 1, reports that the shipments from Java (according to the figures of the Nederlandsche Veem) were as follows:—

—	1899	1898	1897	1896	1895
Amsterdam lbs. August	1,200,000	1,047,000	697,000	979,000	697,000
January–August ..	7,230,800	7,136,000	4,931,000	6,029,000	5,013,700

The shipments from Ceylon for the week ending August 14 were *nil*, and the total exports from January 1 to August 14, 1899, show a decrease of 170,623 lbs. as compared with the corresponding period of 1898. The cinchona-bark auction, to be held in Amsterdam on September 28, will consist of 5,459 bales Ledger and hybridin; 1,349 bales 702 cases Succirubra. The stock in first hands at Amsterdam consisted on September 5 of 2,165 packages Government bark; 8,858 packages private, including the quantity to be put up in the auction of September 28.

COCAINE.—Firm and fairly active at the late advance. There are sellers in second hands of recognised German brands of hydrochloride at from 13s. 3d. to 13s. 9d. per oz.

COCOA-BUTTER.—Lower. At auction on Tuesday 70 tons Cadbury's sold at 1s. 4½d. to 1s. 5½d. per lb., the average being 1s. 4¾d., against 1s. 7¾d. last sale.

COPPER SULPHATE.—A fair inquiry is reported for spring delivery, but demand on the spot is very slow at 23l. 15s. for ordinary brands, 24l. 10s. for Anchor, and 23l. to 23l. 10s. per ton, f.o.b. Liverpool.

DENTRIN has been advanced about 10s. per ton this week on account of the gloomy reports of the coming potato-harvest in Germany and the short supply in makers' hands. Agents here now quote 14l. 15s. per ton ex-wharf.

DRAGON'S-BLOOD.—The picked lump for which a bid of 16l. was made in sale last week is still on hand. Buyers take exception to the large cases in which this quality has been sent over, each case weighing nearly 5 cwt.—about a quarter that size would be much more convenient in every way. For good reed 12l. per cwt. is wanted, and a small parcel of this kind is about landing.

ERGOT.—Holders of Spanish continue to ask 2s. 6d. per lb., and for Russian there are offers of 1s. 9½d. to 1s. 10d. per lb., c.i.f. To-day, however, Russian has sold at 2s. per lb.

FARINA has been advanced to 11l. 5s. per ton, ex-wharf.

FERRI ET QUININÆ CIT. has been reduced to 8d. per oz. in vials, and 7d. in 25-oz. tins, with the usual reductions for large quantities.

GALLS.—Blue Persian are firmly held, and several importers have withdrawn their parcels from the market. Nothing is now to be had under 65s. per cwt. for fine blue, but buyers hesitate to pay this figure.

GAMBOGE.—Since the auctions a few cases of fair Singapore seconds have changed hands at 7l. 10s. per cwt., and

we understand that several other lots are in process of negotiation.

GUM ARABIC.—At auction to-day the heavy supply of 3,153 packages was offered (Bombay gum as usual predominating), of which 246 packages sold at easier rates on the whole. The following were some of the prices paid:—Karachi, pale siftings, 31s. to 32s. per cwt., subject. Ghatti, small low, 13s.; medium yellow, 24s. 6d.; and blocky, 9s. 6d. per cwt. Aden, fine pale frosted, 60s.; low siftings, 17s. 6d. to 22s. 6d.; low and horny, 17s. 6d. Cawnpore, good pale, 33s.; siftings, 20s. Australian, soft brown blocky, 10s. to 12s. per cwt. Persian, insoluble, red, 18s. Mogador, good brown, 43s. 6d. per cwt., subject. Fine pale Turkey sorts were limited at 80s.

GUM OLIVANUM.—Inferior grades were in good demand at decidedly lower rates, small mixed drop realising 23s.; low Aden drop, 21s.; bold pea size, 18s. to 19s.; and small, 12s. 6d. to 16s. per cwt.

GUM SANDARAC.—Five bags of fair pale Australian realised 28s. 6d. to 29s., and a case of dark 18s. 6d. per cwt.

GUM TRAGACANTH.—Business has been more brisk within the past week or ten days, and stocks of thirds and fourths are now very much reduced. Of the better grades a fair quantity has been sold at 10l. 10s. per cwt. and upwards for druggists' seconds; fine firsts are nominally held for 14l. to 14l. 10s. per cwt.

IPECACUANHA.—Quiet, but firmly held by importers, who are reported to have withdrawn their parcels of Rio and Cartagena from the market, apparently until the depression is over. Their last price was 14s. 6d. for sound Rio root, and yesterday it was reported that 14s. had been refused for a 50-bale lot. A few bales of Cartagena have arrived this week; 10s. 6d. per lb. remains the limit for sound root of this character.

JALAP is dearer in the United States, but there has been an absence of business on this market for some weeks past. For good tuber 6½d. to 6¾d. per lb. is wanted.

MENTHOL has been in good inquiry at 7s. 6d. per lb. spot from second hands, and there is a little to be had at 7s. 4½d. For arrival 7s. 4½d. c.i.f. is quoted.

MORPHIA.—One maker has advanced his quotation 1d. per oz., to 4s. 9d. for powder in quantity, and 2d. more for crystals; other makers have as yet announced no alteration.

NAPHTHA.—Wood is quoted 3s. 6d. per gallon, f.o.b., London or Continent.

OIL, ANISE (STAR).—Dull of sale, with sellers on the spot at 5s. 10½d. to 6s. per lb. for arrival.

OIL, BUCHU, has been reduced to 3s. 3d. per oz., in quantity.

OIL, CASTOR.—Belgian remains firm at the advance of last week. French first-pressing is quoted 24s. to 25s. per cwt. Hull make is 26s. 9d. for first-pressing, and 25s. 3d. for seconds, in barrels; 3½d. to 3d. per lb. respectively in cases; best medicinal is 29s. 3d. in barrels, and 3¾d. in cases.

Calcutta advices, dated August 17, report a limited demand, although prices have not declined, as production and stocks are small. No. 1, fine pale, in cases, is quoted 12r. per Bengal maund, naked.

OIL, CITRONELLA.—For forward shipment business continues to be done on the basis of 10d. per lb., c.i.f., in drums, in quantity. Spot is quiet at 1s. to 1s. 1d. per lb.

OIL, COD-LIVER.—Some agents and importers look for an early improvement in the market, which at present is sluggish, with small sales at 58s. per barrel. c.i.f.

BERGEN, September 2.—Market is unchanged, with a decidedly slow tendency. The remaining stock, however, is being concentrated in the hands of the largest exporters, and there is very little chance of Lofoten non-congealing oil going below its present value of 54s. per barrel, f.o.b. terms. The exports to date from Bergen amount to 8,631 barrels, against 5,144 barrels at the same time last year.

OIL, LEMON.—Still downward in tendency, there being sellers of pure at 3s. 2d. to 3s. 4d. per lb., c.i.f.

OIL, LEMONGRASS.—Firm, with sales on the spot at 2½d. to 3d. per oz.

OIL, PEPPERMINT.—Cables from Japan this week quote dementholised at 3s. 10½d. per lb., c.i.f., and 40-per-cent. oil 5s. per lb. For American HGH importers ask 5s. 6d. per lb., c.i.f.

OILS, FIXED.—*Linseed* is slightly easier, at 21s. 3d. in pipes at waterside, or 21s. 4½d. landed; barrels 21s. 6d. per cwt. for immediate delivery. *Cottonseed* is also easier, at 17s. to 19s. per cwt. for refined in casks; and 16s. per cwt. for crude on the spot. *Rape* steady and unchanged at last week's quotations. Fine *Lagos Palm* has been advanced 26s. per cwt.

OPIUM.—Unchanged and quiet, with holders of Persian firm at 11s. 9d. to 12s. per lb. for finest; and 10s. to 11s. for medium grades. Supplies of this kind on the spot are very small, and little is expected at the moment. As regards Turkey grades, very little, if any, business had been done up to Wednesday. Private advices from Constantinople report a slightly easier market within the past week, which in one quarter has facilitated business, especially in Tokat grades.

SMYRNA, August 25.—Since our last advices we have had a very active market, sales amounting to about 100 cases, as follows:—Twenty-four cases old selected material at the parity of 8s. 4d. to 8s. 5d.; 38 cases new Dutch grades at 8s. 5d. to 8s. 7d.; 4 cases Yerli at 8s. 10d.; 6 cases Karahissar, 8s. 4d.; and 36 cases new current talequale at 8s. 1d. per lb., c.i.f. terms. There are still buyers, and every hour a fresh one comes forward. Sellers, however, are few, and will only come to terms when buyers agree to pay an advance of 1d. to 2d. per lb. over last prices paid. Large American buyers have come forward this week, and if their limits are within holders' ideas a large quantity is expected to change hands. Most of the talequale opium sold this week is for the United States and Germany, and the balance for the Dutch Government, with a few cases for England and France and local speculators. The arrivals to date are 1,400 cases, against 663 cases last year.

CONSTANTINOPLE, September 1.—The views expressed in our last were fulfilled sooner than we expected, consequent on moderately heavy buying in Smyrna or American and London account at rising prices. Holders are becoming more confident, and are now asking higher prices than is justified by the actual position. It is possible that values may rise a little more, but it remains to be seen how long present prices can be maintained without continued outside help. The sales for the week are as follows:—Forty cases Holland visita at 8s. 9d., 20 cases Balukissar at 8s. 6d., and 5 cases druggists' at 8s. 3d. per lb., f.o.b.

A British consular report on the trade of the Persian Gulf in 1898 states that the supply of opium fell short of the demand, and prices obtained in Hong-Kong and London were remunerative. It is said to be much appreciated in Formosa. The year's transactions show a decrease of 203,900r. (12,744l.). The shortage is said to be due to failure of the cultivation in Kerman and increased overland traffic with Afghanistan. From Bushire 3,681 chests (210,508l.) were exported, against 3,381 chests (194,408l.) in 1897; from Lingah 31l. worth of opium was exported, against 12l. in 1897; from Bunder Abbas 567 chests (35,437l.), against 1,286 chests (64,300l.) in 1897; from Bahrain, 8l., against 9l.; total, 245,984l., against 258,729l. in 1897.

OTTO OF ROSE.—Buyers have been quietly filling their requirements for the new otto at from 23s. to 24s. per T. oz. for finest. No shipments of new have as yet come to this market. Some is on the way.

POTASH SALTS.—Chlorate is quiet, and quotations are nominally unchanged at 3½d. per lb. for 5-ton lots in crystals, and powder 3¾d. f.o.b. Liverpool. Prussiates have had a weaker tendency lately, English yellow being quoted on the spot at 8d. per lb., and Beckton at 7½d. to 7¼d.; a recovery is shortly expected. Permanganate is quiet at 50s. to 51s. per cwt. Citrate has been reduced to 1s. 6d. per lb. Carbonate is reported scarce, and several makers are unable to supply, and have raised their quotations considerably.

QUININE.—About 2½d. per oz. lower in second hands. The market at the end of last week closed firmer, a limited business being done in German brands at 1s. 1d. spot and 1s. 1½d. for December delivery; but the improvement was short-lived, as on Monday the market opened flat and weak, with sellers at 1s. 0½d. spot, but no buyers. Quite a little panic set in on Tuesday, when, owing to the heavy bark-shipments from Java during August, and the huge quantity of bark declared for the September auctions in Amsterdam, weak holders were eager sellers, and on that day about 80,000 oz. changed hands, at 11¾d., 1s., and 1s. 0½d., the bulk being done at 1s., for spot; for December delivery, 1s. 0½d. to 1s. 0¼d. was paid. On Wednesday the spot-

quotation declined to $11\frac{3}{4}d.$ to $11\frac{1}{2}d.$, at which figure only a small business was done; and for October $11\frac{3}{4}d.$ and December delivery $11\frac{3}{4}d.$ to $1s.$ per oz. was paid. To-day's transactions include December delivery at $11\frac{3}{4}d.$ to $1s. 0\frac{1}{4}d.$, and spot at $11\frac{3}{4}d.$ to $11\frac{1}{2}d.$ per oz.; the market was pronounced slightly firmer at the close.

SCAMMONY-ROOT.—Nothing doing; $18s. 6d.$ per cwt. will buy fair. Scammony good firsts continue to be sold in a small way at $30s.$ per lb.

SEEDS—Nothing new to report, and last week's quotations hold good.

SENEGA—Very scarce here at $1s. 9d.$ to $1s. 10d.$ per lb. spot, or $1s. 6d.$, c.i.f.

New York advices dated August 23 report that one of the largest shipments ever known, comprising 140 bales, arrived on August 17. There is no evidence of its having been offered for sale, and a belief prevails that it has been placed with other recent arrivals, with a view towards concentration. A report is current that the Western markets are somewhat disturbed, owing to the fact that the banks there are calling in loans for the purpose of moving the grain crops, which are given preference over small speculative articles.

SENNA.—For a few lots of good Alexandrian leaves $8d.$ per lb. is reported paid this week, otherwise the market is very quiet. Some new crop Alexandrian of Mecca character has arrived this week.

SHELLAC—A quiet market with a retail business. Fair second orange T.N. is quoted on the spot at $64s.$ to $65s.$ per cwt., and October-December shipment at $63s.$, c.i.f.

SOY.—Good Chinese is $1d.$ cheaper, sales having been made at $1s. 2d.$ per gallon spot; arrivals are coming in freely.

SPICES.—A good business has been done this week in *Pepper* at rather dearer prices, especially for white; and *Ginger* was more inquired after, closing quieter. At auction on Wednesday the offerings of Cochin *Ginger* were large, but there was little demand, and the bulk was bought in at $25s.$ for washed rough; small native cut partly sold at $26s.$ per cwt.; bold at $49s.$; and Calicut brown rough at $23s.$ Jamaica was mostly withdrawn, a few lots selling at $52s. 6d.$ to $60s.$ per cwt. for ordinary to fair. Small sales of Japan are reported at $20s. 6d.$ per cwt. Zanzibar *Cloves* are in more demand, with business at $3\frac{7}{32}d.$ to $2\frac{9}{32}d.$ per lb. for delivery, according to position. A parcel of good red Penang sold at $7d.$ to $7\frac{3}{8}d.$ per lb. Japan *Chillies* partly sold at $38s.$ per cwt. for good red. East India *Capsieums* realised $26s.$ per cwt. for cherries. *Pimento* steady; a fair quantity sold at $3\frac{1}{4}d.$ to $3\frac{3}{8}d.$ per lb. for fair to good. *Cassia lignea* was bought in at $50s.$ per cwt. for good, and at $38s.$ for broken. *Pepper* dearer; heavy black sold at $8d.$ per lb., and good Ceylon at $5\frac{1}{4}d.$; good Tellicherry sells at $5\frac{1}{2}d.$, and fine at $5\frac{3}{4}d.$. Singapore black was bought in at $5\frac{3}{4}d.$. For arrival $5\frac{1}{16}d.$ has been paid for distant. Singapore white was bought in at $8\frac{1}{4}d.$ per lb.; and Penang partly sold at $8\frac{1}{16}d.$.

TAMARINDS.—Since the auctions good fresh West Indian have sold at $9s.$ per cwt.

TURMERIC.—Firmer, with sales of Cochin split bulbs at $8s. 6d.$ to $9s. 6d.$ per cwt., and Bengal at $19s.$ to $20s.$; good bright Madras finger is quoted $27s. 6d.$, and $25s.$ for ordinary. On Wednesday $20s.$ was refused for Bengal of dark fracture.

VANILLA.—Since the auctions the market is reported firmer privately, and the outlook points to a further advance. The Parisian market is also very firm, but here there is only a small inquiry.

WAX, JAPANESE.—Quiet, so far as London is concerned, although in Hamburg there is a fair inquiry.

Warning to Cinnamon-buyers.

A correspondent who signs himself "Caution" writes to the *Ceylon Observer* advising buyers of cinnamon to be on their guard against adulteration, as certain Coast Moors have set up in Ratnapura, Ceylon, and have offered a good price for the bark of jungle sticks prepared as cinnamon, and scores of villagers are busy at the new industry.

Coming Events.

Wednesday, September 13.

British Association, Dover. First general meeting at 8 P.M. Sir Michael Foster, Sec.R.S. (President), will deliver address.

Thursday, September 14.

Garden party at Dover College, 3.30 to 6 P.M.
The Mayor's *conversazione* at the Town Hall, 8.30 to 11.30 P.M.

Friday, September 15.

First evening lecture at 8.30 P.M. Professor Charles Richet, of Paris, on "La Vibration Nerveuse."
Visit to Dover Castle, 3.30 to 6 P.M.
Smoking-concert in the Apollonian Hall, Snargate Street, at 10 P.M.

Saturday, September 16.

Grand military tattoo on the sea-front at 9.30 P.M. Space reserved for members.
Visit of the French Association to Dover. Reception, 11 A.M.

Monday, September 18.

Second evening lecture at 8.30 P.M. Professor Fleming, F.R.S., on "The Centenary of the Electric Current."
The Mayor's "At Home" at Connaught Park, 4 to 6.30 P.M.

Tuesday, September 19.

Motor-car exhibition at the Dover Athletic Grounds.
Visit to Betteshanger Park (Lord Northbourne's estate), 4 to 6 P.M.
Visit to Dover Castle, 3.30 to 6 P.M.
Fête in the Granville Gardens, 9.30 to 11.30 P.M.

Wednesday, September 20.

Excursion to Canterbury. Reception of British and French Associations by the Mayor and the Dean and Chapter.

Thursday, September 21.

Visit of the Association to Boulogne, 8.30 A.M.
Reception by Municipality of Boulogne, 12.30 P.M.
Excursions to Chatham, Wye Agricultural College, and the Weald of Kent.

Friday, September 22.

Five days' excursion in France and Belgium, to Abbeville, Amiens, Arras, Brussels, Antwerp, Ghent, and Ostend.

ROYAL PHOTOGRAPHIC SOCIETY'S ANNUAL EXHIBITION from September 25 to November 11. Last day for receiving exhibits September 5.

OPENING OF THE WINTER SESSION ON OCTOBER 2.—School of Pharmacy, 17 Bloomsbury Square, W.C. Opening of the session and distribution of prizes at 3 P.M. Professor D. J. Leech, M.D., will address the students, and the prizes will be distributed by the President of the Pharmaceutical Society.

Charing Cross Hospital Medical School. Address by Dr. Mitchell Bruce at 4 P.M.

St. George's Hospital Medical School. Address by Dr. Howship Dickinson at 4 P.M.

St. Mary's Hospital Medical School. Address by Mr. H. G. Plimmer at 3 P.M.

The Middlesex Hospital. Address by Mr. John Murray. University College, London. Address by Dr. G. F. Blacker at 4 P.M.

London School of Medicine for Women. Address by Mrs. Garrett Anderson, M.D.

Mason College, Birmingham. Sir Wm. Gairdner will deliver the opening address.

University College of South Wales and Monmouthshire, Cardiff. Address (on October 6) by Professor A. W. Hughes.

Yorkshire College, Leeds. Address by Dr. Byrom Bramwell.

University College, Liverpool. Address by Rev. S. A. Thompson-Yates (on October 3).

Owens College, Manchester. Introductory address by Sir J. Crichton Browne.

THE WOOTTON COMPLIMENTARY DINNER will take place at the Hotel Métropole, London, on October 5. Dinner tickets (one guinea each) may be had from the Secretaries, 157 Queen Victoria Street, E.C.

MESSES. DAKIN BROTHERS, 87A Leadennall Street, inform us that Mr. W. H. Rosenberg, whose death by drowning we reported last week, was not the "chief" of their laboratory department, but occupied a subordinate position. "At the same time," they add, "he was a valued assistant, and had earned the respect and regard of all who knew him."

